USING A THEORY OF PLANNED BEHAVIOR APPROACH TO ASSESS PRINCIPALS' PROFESSIONAL INTENTIONS TO PROMOTE DIVERSITY AWARENESS BEYOND THE LEVEL RECOMMENDED BY THEIR DISTRICT

A Dissertation

by

EDITH SUZANNE LANDECK

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2006

Major Subject: Curriculum and Instruction

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ABSTRACT

Using a Theory of Planned Behavior Approach to Assess
Principals' Professional Intentions to Promote Diversity Awareness
Beyond the Level Recommended by Their District. (December 2006)
Edith Suzanne Landeck, B.B.A., St. Mary's University of San Antonio, Texas;
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The increasing population diversity in the United States and in public schools signifies a need for principals to promote diversity awareness as mandated by principal standards. A means to quantify and measure the principals' diversity intentions empirically is required. This study researched the possibility that the Theory of Planned Behavior (TPB) (Ajzen, 1991) could provide a theoretical basis for an operation measurement model. The instrument for the study was an electronic survey administered via e-mail to a random sample of 151 principals. This instrument incorporated the Professional Beliefs About Diversity Scale (Pohan & Aguilar, 2001) with the operationalized General Principal's Diversity Model and the Professional Diversity Intentions sub-models. Three research questions guided the study: 1) Can a theory of planned behavior approach be used to assess school principals' professional intentions to promote diversity awareness? 2) What are the intentions of Texas principals to promote diversity awareness in general and among the five diversity dimensions of disabilities,

gender, language, racial/ethnic, and social class in their campus community? and 3) Do these intentions differ among five demographic characteristics of race/ethnicity, gender, age, degree, and campus type?

Findings of the study were:

1. The results of this study provided the scientific validation that the TPB approach can be used to assess public school principals' professional intentions to promote diversity awareness.
2. At present, Texas principals' intentions are only slightly more positive than the neutral midpoint, a 3.38 average score out of a possible 5.00 regarding intention to promote diversity awareness. Frequency analysis of the sub-models indicated positive intentions for Gender (58 cases or 38.41 percent); Race/Ethnicity (78 cases or 51.66 percent); Social Class (79 cases or 52.32 percent); and Disabilities and Language each had 89 cases (58.95 percent).
3. Principals' intent to implement diversity decreases with age and higher academic degree held.
4. Hispanic principals are more likely than African American or White principals to promote diversity awareness.

This study concluded that a Theory of Planned Behavior approach as operationalized in this study may be used to assess school principals' professional intentions to promote diversity beyond the level recommended by their district.

DEDICATION

This study is dedicated to my parents, Marie Carrola and Dr. Michael Landeck, for instilling a desire for knowledge and helping to forward my academic career. My parents had to work many years before they were able to pursue their education, and did so against great odds; both were the first generation of their families that went to college. Their example makes me very grateful for the opportunities and blessings that I have received. Thank you both for everything! Also, I dedicate this study to my beloved son, Heinz Joseph, for enriching my life. He is living evidence of the often unseen hand of the Divine.

ACKNOWLEDGEMENTS

I would like to thank and acknowledge Dr. Patricia J. Larke, my committee chair, for her leadership and guidance throughout my classes and dissertation. I would also like to acknowledge Drs. Juan Lira, Linda Skrla, and Patrick Slattery, members of my committee who were very instrumental in shaping the dissertation process. I would also like to thank Dr. Rosa Maria Vida for her instrumental role in establishing the doctoral program in Laredo, which made my studies (and those of my colleagues) at this level possible. I would also like to thank all the professors in my Alternative Certification Program for their innovation and belief in their students. A final acknowledgement is to GeorgeAnne Reuthinger, Esther Buckley, and our fellow students who comprised the initial cohorts of PhD students from Laredo to undertake doctoral studies at Texas A&M. This involved a plethora of twelve hour round-trip commutes to the campus, summers away from home and loved ones, and many job changes; yet, these educators not only persevered, they provided support every step of the way.

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CHAPTER I

INTRODUCTION

As diversity increases in Texas public schools, research is needed to assess the principals' intentions to promote diversity awareness. American principals constitute a primary group in the process of school reform, as agents of change, as school managers, and as leaders, especially as accountability for school outcomes increases (Smith & Andrews, 1989; Fiore, Curtin, & Hammer, 1997). As early as 1972, the U.S. Congress recognized the growing significance of school principalship in a published report stating that in many ways school principals are the most important and influential individuals in the schools (U. S. Congress, 1972). Their leadership sets the tone of the school, the climate for learning, and the

level of professionalism the faculty. Principals must be visionary leaders and expert managers in a changing societal context (Richard, 2000; Holland, 2004) that dictates the need for diversity awareness.

Through the last quarter of the twentieth century, demands on both schools and principals have increased dramatically. Society is becoming more diverse than ever before in its history, and many of our school systems reflect this diversity in their student populations. Today, one-third of the entire student population in America consists of students of color, and by the year 2020 it is predicted that this segment will increase to one-half of the school age population (McCray, Wright, & Beachum, 2004).

This dissertation proposal follows the style and format of the *American Educational Research Journal.*

School principals must take the lead by incorporating multicultural concepts and ideas into the school's culture in order to address the increasing diversity of students and staff, since the principals set the climate for cultural acceptance for the school (McCray, et al., 2004). The promotion of an awareness of diversity is an element of the Texas standards for principal preparation, assessment, and certification (Texas Administrative Code, 2005, Title 19, part 7, chapter 241, section 241.1.a). Leadership in addressing diversity occurs in a context with the principal's other duties, that includes acting as the executive officer, coordinator, motivator, expert, advisor, mediator, interpreter, supervisor, evaluator, democratic example, and advocate (Combs, 1994). Principals are also expected to serve as building managers, personnel administrators, change agents, boundary spanners, disciplinarians, cheerleaders, and instructional leaders (Smith & Andrews, 1989; Fiore, Curtin, & Hammer, 1997).

These and other varied principal role descriptions were consolidated into five broad areas by the National Center for School Leadership. These five areas are: (a) defining and communicating the school's educational mission; (b) coordinating curriculum; (c) supervising and supporting teachers; (d) monitoring student progress; and (e) nurturing a positive learning climate (Blase, 1987). The last element of the principal's role description includes the principal's interaction with diversity, as the principal should create diversity awareness within the school that allows the school to become all encompassing and democratic (McCray, et al., 2004; Capper, 1993; Stainback & Stainback, 1990).

Statement of the Problem

"How well our younger generation adapts to an increasingly diverse world may well depend on their experiences at school" (Blair, 2000, p. 1). As diversity becomes more prevalent throughout our nation and in our schools, the question has arisen as to whether principals are incorporating this societal shift toward increasing levels of diversity in their formulations of campus goals and in developing strategies that can lead toward attainment of these goals. Because principals set the tone for the school's culture and provide the proper vision for the direction of the institution, it is imperative that their attitudes and intentions in promoting an awareness of diversity in their campus communities be identified and examined (McCray et al., 2004).

Purpose of the Study

The purpose of the study is to provide an empirical theoretical base that could measure and explain principals' diversity awareness related behavioral intentions. The study is designed to operationalize and utilize empirical theoretical concepts related to the principal's diversity awareness intention model. This study sought to quantitatively evaluate Texas principals' intentions in promoting an awareness of diversity within campus communities.

Research Questions

The research questions in this study are:

1. Can a theory of planned behavior approach be used to assess school principals' professional intentions to promote diversity awareness?

2. What are the intentions of Texas principals to promote diversity awareness in general and among the five diversity dimensions of disabilities, gender, language, racial/ethnic, and social class in their campus community? and
3. Do these intentions differ among five demographic characteristics of race/ethnicity, gender, age, degree, and campus type?

Further, in accordance with the theory of planned behavior (Ajzen, 1991), research was performed to measure the following three concepts for diversity in general and for each of the previously mentioned types of diversity by: (a) the attitudes of principals towards promoting diversity awareness; (b) the perceptions that principals have regarding subjective norms (the level of approval that they expect from peers whose professional opinion they value), if they were to promote diversity awareness; and (c) the perceived behavioral control (degree of difficulty) that the principal expects in promoting awareness of diversity (Ajzen, 1991; Zint, 2002; Pohan & Aguilar, 2001).

Significance of the Study

Population in U. S. public schools predicts the dramatic transformation of American society occurring in the next generation. This society's school-age population is much more diverse than the older population (Blair, 2000). In the year 2020, half of all students in American school systems will be students of color, as compared to one third of the student population today (Patrick & Reinhartz, 1999; McCray, Beachum, & Wright, 2004). Increasing diversity in our nation and schools dictates the need for the school principals to play a central role in initiating and implementing multicultural concepts and ideas into school cultures. This is primarily due to the fact that the

principal's leadership is responsible for setting the cultural climate for the school (Decker, 1997). An examination is needed to determine principals' intentions to promote diversity awareness on campus because "school leaders must create environments that promote cultural pluralism and provide every student with an opportunity to succeed" (McCray, et.al., 2004, p. 112). This study utilizes the Theory of Planned Behavior (Ajzen, 1991) as the foundation for an empirical model to measure principals' intentions to promote diversity awareness on campus. The yield of this instrument revealed the principals' attitudes, subjective norms, and perceived behavioral control to promote diversity awareness on campus. As a result, it is expected that academicians, practitioners, policy makers, and the public at large will be provided with an empirically sound tool for measuring, better understanding, and planning possible contributions that principals could make toward the common societal goal of increasing diversity awareness in general, and in Texas public school campuses, in particular.

Theoretical Base for the Study

The theoretical base of this study is the theory of planned behavior (Ajzen 1991). Based upon this theory, the following "General Principal's Diversity Intentions" (GPDI) model (see Figure 1.1) was developed to measure and explain the formation of principals' intentions of promoting diversity awareness in their campuses.

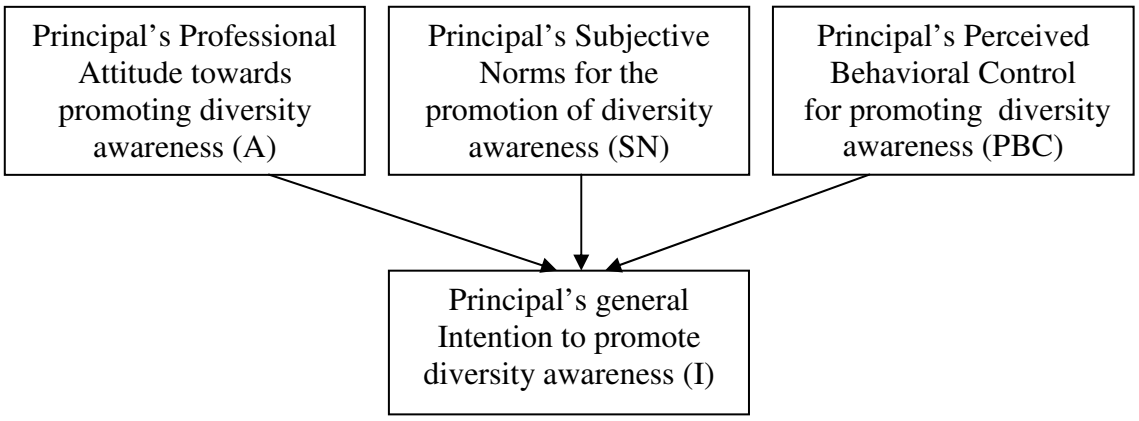

FIGURE 1.1. The General Principal's Diversity Intentions (GPDI) Model

The GPDI Model graphically illustrates the confluence of factors leading to a principal's intentions. The principal's attitude, subjective norm, and perceived behavioral control are mitigating factors in that principal's intentions to promote diversity awareness within their campus community.

Definitions

1. Attitude: a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to an object or class of objects (Fishbein 1967); an attitude is not passive, but rather it exerts a dynamic or directive influence on behavior; attitudes are believed to directly influence behavior (Kolekofski & Heminger, 2003).
2. Subjective Norms: an individual's perceived expectations of important peers with regard to his or her performing the behavior in question (Sutton, 1998).

3. Perceived Behavioral Control: the extent to which the individual feels he or she has control over performing the behavior, or the perceived ease of performing the behavior (Sutton, 1998).
4. Intention: an individual's plan to perform a given behavior (Fishbein, 1967).
5. Diversity: various population characteristics of race and/or ethnicity, social class, gender, religion, languages, and sexual orientation, inclusive of historically marginalized socio-cultural groups present in society (Pohan & Aguilar, 2001). Diversity references the differences among people that may be categorized in terms of economic groups, languages, ability, age, and sexual orientation (Grant & Ladson-Billings, 1997). Noack (2004) defines diversity as a commitment to establishing a safe and nurturing inclusive community that values and celebrates the human characteristics that make an individual unique, inclusive of age, disability, ethnicity, gender, national origin, race, religion, sexual orientation, and socioeconomic background. Also, disabilities diversity references visible and non-visible disabilities. Language diversity may refer to different languages as well as dialects spoken. Gender diversity references the female, intersexed, male, and transgendered categories (Noack, 2004). However, only the traditional female and male categories of gender were used for reporting purposes to the Texas Education Agency and are referenced as such in this study.
6. Dimensions of Diversity: the specific sub-types of diversity as defined by Pohan and Aguilar (2001) including disabilities diversity, gender diversity, language diversity,

racial/ethnic diversity, religious diversity, sexual orientation, and social class diversity.

Assumptions

1. It is assumed that the random sample of full-time, public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year are representative of the total principal population in Texas.
2. It is assumed that the subjects of this study will respond to the survey questionnaire in a manner that most closely reflects their true professional perceptions and opinions.

Delimitations

This study included only those full-time, public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year. Also, the relationships between the covert behavior (intentions) and overt behavior (the implementation of the intentions) are not a part of this study. That type of relationship must be measured through a longitudinal study that would allow for time to pass so that principals could have the opportunity to implement that which they intended.

Organization of Study

The organization of this study will follow the following format. Chapter I will present an introduction to the subject of this study. Chapter II will provide a literature review of the relevant research on the topics addressed in the study. Chapter III will cover the methodology for the study. Chapter IV will present the findings of the study; and Chapter V will address the study's discussions, conclusions, and recommendations.

CHAPTER II

REVIEW OF LITERATURE

This review of literature is divided into the following sections: principals, diversity, principal's professional beliefs regarding diversity, human behavior theories, and a summary of the chapter. The section on principals is organized into the areas of the role of the principal, principal leadership, principal demographics, principal standards, and Texas standards. The diversity section is followed by the section on principal's beliefs regarding diversity and addressed changing U. S. demographics and changing Texas demographics. The section on human behavior theories examined the basic attitude model, Fishbein's attitude model, the theory of reasoned action, and the theory of planned behavior.

Principals

Risius (2002) provided an excellent overview of the historical evolution of the principalship as supported in research literature, citing sources from 1935 through 1996. These sources reference dates as far back as 1838, and detail the emergence of the principalship from the stages of head teacher or headmaster, to the principal as a manager, to instructional leader, to transformational leader, and to educational leader (Risius, 2002). Risius' work was the primary foundation for the overview provided below.

"No historical records exist that state the exact date of the creation of principal in American education" as per Pierce, 1935 (Risius, 2002, p. 82). According to the National Education Association, the head teacher or headmaster was created during the

colonial period and held sway until approximately 1840 (National Education Association, 1948). "The official role of the principal is thought to have taken place in Cincinnati in 1838" (Risius, 2002, p. 82). Cuban (1988) stated that "principals were relieved of their teaching duties in most schools by the 1920's, and were looked upon as managers and supervisors" (Risius, 2002, p. 82). This was in accordance with the 1921 statement of the National Association for Elementary School Principals that a principal should be a leader to the members of their staff. In 1948, the National Education Association stated that teacher supervision is the duty of the school leader. This evolved into that which Hallinger (1992) described as the principal as program manager in the 1960's, and the principal as instructional leader in the 1970's (Risius, 2002). In 1982, Sweeney declared that student achievement must be the highest priority for an effective instructional leader, and in 1992, Leithwood described the principal as transformational leader. Wallace (1996) stated that the principal was an educational leader who understands that learning is a lifelong process (Risius, 2002).

Combs (1994) holds that the position of principal contains the most potential for influence on the lives of students, and that principal leadership can provide key leverage to meet major challenges in the nation's schools. Donaldson (2001) stated that the principal must be able to shape the school to meet emerging needs in its environment and among its students, especially since principals have become the primary players in school instructional improvement programs. DiPaola and Tschannen-Moran (2003) state "as the nation seeks significant reforms in education through standards and accountability, it increasingly looks to principals" as there is a general belief that good

school principals are the cornerstones of good schools and that without a strong principal's leadership, efforts to raise students' achievement cannot succeed (DiPaola & Tschannen-Moran, 2003, p. 43). There is a growing concern that the principalship may be expanded beyond what is reasonable in a single job description. Through the last quarter of the 20th-century, the demands on both schools and principals have dramatically increased (Decker, 1997). Although the principalship has always been a demanding, full-time-plus job, committees and task forces established to study educational reform seemed to conclude that principals must simply do more.

Role of Principals

The National Policy Board for Educational Administration delineated twenty-one performance domains in four domain groups that include the elements of a knowledge and skill base within each domain that contribute to the foundation for exemplary principal performance. The four domain groups are the functional, programmatic, interpersonal, and contextual domains. The functional domains include leadership, information, problem analysis, judgment, organizational oversight, implementation, and delegation. The programmatic domains encompass instruction and the learning environment, curriculum design, student guidance and development, staff development, measurement and evaluation, and resource allocation. The interpersonal domains comprise motivating others, interpersonal sensitivity, oral and nonverbal expression, and written expression. The contextual domains consist of philosophical and cultural values, legal and regulatory applications, policy and political influences, and public relations (Thomson, 1993; Skrla, Erlandson, Reed, & Wilson, 2001).

Critics of this model of exemplary principal performance indicate that it is too complex for a single person to master, while others believe that it does not go far enough. According to Skrla, et al. (2001), mastery of the knowledge and skills within the domains will not automatically result in an excellent or even good principal; persons seeking the principalship must couple mastery of these elements with an additional quality for the school to be successful. These authors define this additional quality as purpose; other authors refer to this extra element as: "care (Beck, 1994), love (Scheurich, 1998), respect (Ellis, 1997), morality (Bogotch, Miron, & Murray 1998; Maxcy & Caldas, 1991), ethics (Beck & Murphy, 1997), and community (Sergiovanni, 1994), among other things" (Skrla, et al., 2001, p. 171).

Principal Leadership

Research has shown that the principalship has been expanded to include significant responsibilities for the instructional leadership of schools, ensuring that all children achieve to meet high standards and to assure that the needs of children with disabilities are met (Combs, 1994; Risius, 2002). The managerial tasks of the principals have also been expanding as regulations, reporting requirements, and e-mail access to the principal has increased. Additional research identified the school principal as the key figure in setting the tone for the school and assuming responsibility for instruction (Brookover, Beamer, Efthim, Miller, & Hathaway, 1982; Edmonds, 1979). Principals are expected to respond to accountability measures imposed by external constituents by acting as agents of change; principals are charged with maintaining safe school

environments and are spending more time coping with student behavior problems (Brookover, et al., 1982).

Research on effective schools was instrumental in the movement for principals to be actively involved in becoming instructional leaders (Hallinger, 1992 p. 36). Instructional leadership has emerged as a term to describe a broad set of principal roles and responsibilities designed to address the workplace needs of successful teachers and to foster improved achievement among students over time. The importance of effective instructional leadership in the development of academically challenging programs has been well documented in the literature. Principals as instructional leaders support teachers, maintain focus on the task of the school, are good communicators, and coordinate instructional programs (Brieve, 1972). Effective principals provide leadership in instruction, coordinate instructional programs, and emphasize high academic standards and expectations (Marcus, 1976; MacQueen, Wellisch, Carriere, & Duck, 1978; Holland, 2004).

The school's culture and principal's leadership are powerful tools that can encourage school community dialogue (Deal & Peterson, 1991). The protection of every individual's civil and human right is key to ethical leader behavior (American Association of School Administrators Code of Ethics, 1981; Hoyle, English, & Steffy, 1998), and a school's culture should facilitate educational empowerment and progress for all ethnic groups (Banks, 1999). Leadership and diversity are elements that must be at the forefront of principal's thoughts. Principals need to be aware of the cultures and diversity in their schools (Garrett, 2002). Principals must be well prepared to work with

an array of people from a variety of cultural backgrounds (Morgan, 2002). Treating all members of the school community equally with the same dignity and fair play is pivotal in creating an environment grounded in justice and integrity (Sergiovanni, 1992).

Principal Demographics

Literature was searched to yield possible documentation regarding profiles of principals at the national and state levels. It is necessary to use data collected by the National Center for Education Statistics and analyzed by Fiore, Curtin, and Hammer (1997), the Texas Education Agency, and the work of Nelson (1983) and Combs (1994) in order to present and describe the characteristics of principals in the State of Texas. A 1997 study conducted by Fiore, Curtin, and Hammer drew on secondary data from the National Center for Education Statistics' (NCES) national Schools and Staffing Survey (SASS) that profiled American public and private school principals from 1987 through 1994. During this time period, approximately 80,000 principals served in U.S. public schools. The majority of these principals were men, although the percentage of female principals grew during the same time period from 25 to 34 percent. The percentage of public school principals of color increased from 13 to 16 percent. Most principals held more than one college degree, often in different fields of study, with over one-third degreed in elementary education and over two-thirds of the principals degreed in educational administration. Almost forty percent of males were likely to have been an athletic coach prior to the principalship, whereas almost thirty percent of women had been curriculum specialists or coordinators (Fiore, et al., 1997).

Data from the NCES's 2003-2004 Schools and Staffing Survey (revised in 2006) showed that among all public school principals, 10.6 percent were African American, 5.3 percent were Hispanic (single or multiple races), 0.6 percent were Asian/Pacific Islander, 0.7 percent were Native American, 0.4 percent were of multiple races (non-Hispanic), and 82.4 percent were White; there was a total of approximately 17.6 percent principals of color. Regarding highest level of principal's education, 0.1 percent held less than a bachelor's degree, 30.3 held an education specialist or professional diploma, and 8.6 held a doctorate/first professional degree. Over two-thirds of principals had been an assistant principal or program director. In this survey, data for principal's gender was not presented (Strizek, Pittsonberger, Riordan, Lyter, & Orlofsky, 2006).

The purpose of the study in Nelson's (1983) dissertation was to present a detailed and comprehensive description of the personal and professional characteristics of selected elementary school principals in Texas. Nelson's study randomly surveyed 335 Texas elementary public school principals in April 1982. The findings revealed that the typical elementary school principal in Texas was a White male, married, and approximately 46 years of age, whose first entry into administration occurred at 32 years of age, with the majority having served as an elementary schoolteacher. Most Texas elementary school principals had served only in Texas, with the majority having been employed in only one school district. The majority of the respondents indicated they spent one half of their day on administrative duties. Additional data produced by the study supported the following conclusions: (a) people of color and female aspirants would experience difficulty in securing positions as elementary school principals; (b)

more elementary school principals were moving to the elementary principal position from the elementary classroom; (c) elementary school principals would have difficulty in achieving a more ideal use of their professional time because of increasing demands from other forces; and (d) women and principals of color were more likely to be found serving in the larger communities of the state (Nelson, 1983).

A replication of the Nelson study was conducted by Combs (1994) to describe the current status of the elementary principal in Texas. A factor under consideration was the rapidly changing roles of the elementary principal in response to growing diversity and increasing demands. Data were collected for this study using a mail-out questionnaire sent to a random sample of 345 subjects with a return rate of 45.23 percent. Through the use of percentages, comparisons were made with the findings of the Nelson study. The data in Combs' study indicated that the Texas elementary principal at that time was a White female between the ages of 45 and 54. The principal spent at least one half of the day addressing issues involving instructional supervision. Data also revealed that excess paperwork and the lack of assistant principals kept the principal from devoting more time to instruction. Of the seven areas of responsibility surveyed, principals identified increased expectations in each area that had the most impact, including site based decision making, personnel evaluation, and staff development training. Combs' conclusions were that the expectations inherent in the position of elementary principal had continued to increase both in depth and in breadth (Combs, 1994).

Bandeira de Mello and Broughman (1996) conducted a state-by-state analysis of the SASS, and presented data for Texas public school principals. This analysis showed that in the school year 1993-1994, 23.6 percent of Texas public school principals were people of color (15.2 percent Hispanic; 7.2 percent African American; 0.6 percent were Asian American, and 0.6 percent were Native American). Also, 76 percent of these principals served in campuses with enrollment for students of color at 50 percent or more. During this same period, 41.3 percent of the principals in the state were female and 59.7 percent were male. Elementary public school principals constituted 50.8 percent of the principals in the state and 12.8 percent served in secondary schools. Moreover, 17.5 percent of Texas public school principals served in schools that were classified as both elementary and secondary levels.

In Texas the State Board of Educator Certification conducted a longitudinal study of principals in the state between 1995 and 2002. In that time frame, the number of principals employed in Texas public schools rose from 5,664 to 6,594, representing an overall increase of 16.4 percent. In the same period, the African American principal population increased from 8.3 percent to 9.9 percent, the Hispanic principal population increased from 15.6 to 17.7 percent, the Asian American principal population decreased from 0.5 percent to 0.3 percent, the Native American principal population increased from 0.3 percent to 0.5 percent (the inverse of the Asian American population), and the White principal population decreased from 75.1 percent to 71.5 percent (State Board of Educator Certification, 2002). Also during that period, the number of female principals increased from 2,625 to 3,572, while the number of male principals decreased from

3,039 to 3,022. The percent of female principals changed from 46.3 percent in 1995 to 54.2 percent in 2002, while the corresponding percentage of male principals decreased from 53.7 to 45.8 percent. It is noteworthy that in 1997 the percentages of female to male principals were the closest (49.4 percent female to 50.6 percent male principals), and 1998 was the year when the percentage of female principals was greater than the percentage of male principals for the first time (State Board of Educator Certification, 2002).

Analyses of the national and state studies on principal demographics show a variety of factors, mainly relating to a sea change in the gender and diversity composition of principals. As the student body is rapidly becoming more ethnically diverse, the principalship is also becoming more ethnically diverse, with more principals of color joining the ranks through time. More women are becoming principals; however, most secondary school principals are males. The numbers of principals having less than a bachelor's degree are decreasing with time, whereas the numbers of principals holding masters degrees, doctorates, and professional diplomas or certifications are increasing.

Principal Standards

"American policy makers have come to view principals as linchpins in plans for educational change and as a favored target for school reforms" (Hallinger, 1992. p. 35). Principals find themselves in focus between the press for change and the maintenance of traditional values (Hallinger, 1992). Recent educational reforms demand a different set of management and leadership attributes (Hoyle, Bjork, Collier, & Glass 2005), especially since "the principal who hopes to be an effective instructional leader must

become familiar with the theory of change that underlies the movement to standards-based programs" (Cross & Rice, 2000, p. 62).

The focus on student learning has indicated changes in schooling which in turn has suggested the need for more inclusive discourse and more democratic decision-making processes to be in place in schools (Hoyle, et al., 2005). The need for such inclusive discourse and democratic practices indicate an acknowledgement of the diversity present in campus communities. A school's culture should facilitate educational empowerment and progress for all ethnic groups (Banks, 1999). Protecting every individual's rights, both civil and human, is key to ethical leader behavior (American Association of School Administrators Code of Ethics, 1981; Hoyle, et al., 1998). Treating all members of the school community with the same equality, dignity, and fair play is instrumental in creating an environment grounded in justice and integrity (Sergiovanni, 1992). A strong principal leader is a critical element that can influence the school culture and therefore nurture tolerance and celebrate diversity (Deal & Peterson, 1991; Reitzug & Reeves, 1992). Principals must focus on promoting norms of collegiality that respect individuality and collaboration among each member of the school community (Fullan & Hargreaves, 1991). For these and other reasons, the principalship has come under consideration as an element of educational reform for schools and school systems, especially since "scant attention has been paid to the preparation and qualifications of those who lead them" (Hoyle, Bjork, et al., 2005, p. 3).

For the past twenty-plus years, "professional associations have taken the lead in a movement to develop professional standards for school executives and apply them to

improving the profession" (Hoyle, Bjork, Collier, & Glass, 2005, p. 9). Standards serve many functions at different levels. For example, within the profession, standards help guide the reform of preparation programs and assess student progress. At the state level, standards provide a template for reviewing credentials for licensure, while at the district level standards provide an evaluation framework for principal performance. Standards engender professionalism among those with whom district and school administrators work, including parents and other community members, and support the notion that administrators are worthy of public trust (Hoyle, Bjork, et al., 2005).

Several organizations have developed standards and recommendations for principals. The first widely distributed set of principal standards was the American Association of School Administrators'(AASA) *Guidelines for the Preparation of School Administrators* published in 1982 (Hoyle, Bjork et al., 2005). These guidelines were the foundation for the 1985 *Skills for Successful School Leaders,* which was updated again in 1990. The National Council for Accreditation of Teacher Education also set forth standards for educators. The NCATE leadership standard 7.4 states that school leaders must promote multicultural awareness, gender sensitivity, and racial and ethnic appreciation (National Council for Accreditation of Teacher Education, 1995).

In 1994, the Interstate School Leadership Licensure Consortium (ISLLC), under the auspices of the Council of Chief State School Officers (CCSSO), was formed. The ISLLC consisted of a group of 24 states including Texas, professional educational organizations, and universities that set out to develop a "powerful framework for redefining school leadership and to connect that framework to strategies for improving

educational leadership throughout the nation" (Murphy & Shipman, 2002, p. 4). The ISLLC standards were developed to acknowledge that formal leadership in school districts is a complex, multifaceted task (Council of Chief State School Officers, 1996). Indicators for each standard were detailed in the areas of knowledge, dispositions, and performances (Murphy & Shipman, 2002). The ISLLC standards address diversity within standard four, which states that "A school administrator is an educational leader who promotes the success of all students by collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources" (Council of Chief State School Officers, 1996, p. 16).

In 2002, the National Policy Board for Education Administration (NPBEA) released its standards for administrator preparation, namely the *Standards for Advanced Programs in Educational Leadership*. These standards were created as a synthesis of the latest versions of National Council for Accreditation of Teacher Education (NCATE), AASA, and ISLLC standards, and are divided into sections for school building leadership and school district leadership. Candidates can, in part, meet the standards for school building leadership by demonstrating the ability to analyze and "describe the cultural diversity in a school community" and to "describe community norms and values and how they relate to the role of the school in promoting social justice" (National Policy Board for Educational Administration, 2002, p. 14).

Texas Standards

The Texas standards for principal certification serve as the "foundation for the individual assessment, professional growth plan, and continuing professional education

activities required by §241.30" of Texas public school principals (Texas Administrative Code, 2005, Title 19, part 7, chapter 241, section 241.1.a; Flores, 2002, p. 154). An understanding of the need for diversity awareness as referenced in the Texas standards will be used in this study. This quality is expressed under the Learner-Centered Values and Ethics of Leadership standard as "a principal is an educational leader who promotes the success of all students by acting with integrity and fairness, and in an ethical manner. At the campus level, a principal understands, values, and is able to...promote awareness of learning differences, multicultural sensitivity, and ethnic appreciation in the campus community" (Texas Administrative Code, 2005, Title 19, part 7, chapter 241, section 241.15.b.4). The Texas standards incorporate the understanding that it is important that a school's culture nurture tolerance for a diverse working system (Banks, 1999). In addition, to be an effective leader and influence school culture, a principal must first understand that culture (Deal & Peterson, 1991).

Diversity

Diversity is a dominant characteristic of American cultural that distinguishes the U.S. from other nations, (Li, 2002). The topic of diversity has garnered significant attention over the past decades and changes in the demographic composition of the U.S. have created the need to understand ethnically and culturally diverse people (Azevedo, Von Glinow, & Paul, 2001). This understanding needs to extend through the schools. "With the continuing rise of minority students [students of color], the educational system must be prepared to meet the learning needs of a culturally diverse population" (Growe, Schmersahl, Perry, & Henry, 2002, p. 205). According to Patrick & Reinhartz (1999),

society is becoming more diverse than ever before in its history, and the populations of many school systems reflect this diversity. "American school populations are becoming increasingly diverse...there is an array of racial, ethnic, cultural, and socio-economically diverse students, families, and communities" (Garrett & Morgan, 2002, p. 268). "Schools must prepare for a large but uneven influx of children…one of the rules of demographics is: the younger the population, the greater the diversity…it is a demographic pattern of diversity that has implications for principals" (Hodgkinson, 2002, p. 14).

Walker and Quong (1998) state that in order "to advance learning and school improvement, leaders need to recognize and challenge the confines of sameness and move toward valuing and learning from difference" (Walker & Quong, 1998, p. 81). Madsen and Mabokela (2002) assert that "leadership and diversity are invariably connected as schools move from monocultural, nondiverse contexts to those that contain ethnically diverse, multilingual, and economically disadvantaged children" (Madsen & Mabokela, 2002, p. 1). "Whose role is it to ensure that these students are given an equal opportunity to learn? Along with the many other responsibilities, it is the role of school administrators" (Growe, et.al., 2002, p. 205). Principals are expected to promote diversity awareness, and help to form "an empowering school culture…creating a learning environment in which students from diverse racial, ethnic, and social groups believe that they are heard and are valued and experience respect, belonging, and encouragement" (Parks, 1999, p. 4; Banks, 1993; Growe, et.al., 2002).

Ethnicity and race are frequently associated with the concept of diversity. However, such a narrow approach to the concept "excludes the socio-cultural

educational discrepancies associated with social class, gender, religion, languages (other than English), and sexual orientations" (Pohan & Aguilar 2001, p. 161). A comprehensive definition of diversity would include members of marginalized socio-cultural groups, thereby providing more richness and depth to the concept. Diversity is a salient topic of study due to the "increasing amount of diversity taking place in our nation, as well as our schools" (McCray, et al., 2004, p. 111). Educating for diversity encompasses multicultural education, which assumes that the primary goal of public education is to foster the intellectual, social, and personal development of virtually all students to their highest potential. It includes the movement toward equity, curriculum reform, the process of becoming interculturally competent, and the commitment to combat prejudice and discrimination, especially racism (Bennet, 1999; Carignan, Pourdavood, King, and Feza, 2005). Educators need to put emphasis on issues concerning diversity (McCray, et al., 2004).

Principal's Professional Beliefs About Diversity

Multicultural theorists have indicated that school principals have an obligation to create an environment that promotes cultural diversity regardless of the amount of recognizable diversity in the school (Gay, 1995, p. 55). Diversity and multicultural education has become increasingly important over the past decade as this nation's school population becomes more diverse (Rodriguez, 2000). The increasing levels of diversity in society indicate that schools must play a central role in the initiation and infusing of multicultural concepts and ideas into the school cultures; and the key element for schools is the principal who sets the cultural climate for the campus (Decker, 1997).

Principals must play an active role and must be a model for students when dealing with racial or diversity issues (O'Neil, 1993). For the purposes of this study, Pohan and Aguilar's instrument, the Professional Beliefs About Diversity Scale, was used to assess principals' professional beliefs; these beliefs were incorporated into the model, in addition to measures of both norms and perceived behavioral control. Pohan and Aguilar identified seven types of diversity. They are disabilities; gender; language; racial/ethnic; religious; sexual orientation; and social class diversity. Principals must work for the schools to "find ways to respect the diversity of their students and to help create a unified nation to which all citizens have allegiance…diversity within unity is the delicate goal toward which our nation and its schools should strive" (Banks, Cookson, Gay, Hawley, Irvine, Nieto, Schofield, & Stephan, 2001, p. 203). "For principals, the challenges that accompany diversity issues are offset by an abundance of opportunities to create a culture of tolerance and understanding. Principals can and should capitalize on these opportunities and experience the richness that diversity can bring to their schools (Urquhart, 2002, p. 26).

Changing U.S. Demographics

The 2000 Census showed that the U.S. is the most ethnically and racially varied nation in modern times (Rosenblatt, 2001) where "nearly three in ten Americans are members of a minority (people of color) group" (Davis-Wiley, 2002, p. 53) and as of 2002, nearly one-fifth of the U.S. population lived in a household where a second language other than English is spoken. For the first time in American census history, people were allowed to identify themselves as belonging to more than one ethnic group

(Davis-Wiley, 2002). The number of school-age children aged 5-18 who are second language learners has been conservatively estimated, without counting the children of undocumented workers from other countries, to have reached 3.5 million by the year 2000, and to approach 6 million by 2020. "In 2004, the percentage of racial/ethnic minority students [students of color] enrolled in the nations public schools increased between 1972 and 2004, primarily due to growth in Hispanic enrollments" (Livingston, 2006, p. 5). In 1972, 22 percent of public school students were considered to be students of color, 78 percent of White students; by 2004, 43 percent of public school students were students of color, and the white students had decreased to 57 percent; as of 2003, the enrollment of students of color exceeded White enrollment in the West (Livingston, 2006). In fact, groups of students of color were projected to soon become majorities in the rest of the country, especially in densely populated urban areas (Faltis, 2001). It is projected that "non-Hispanic Whites will make up barely one-half of the population by 2050 and will lose their majority status by 2060" (Riche, 2002, p. 4).

Garrett and Morgan's contention is that as the population of the U.S. is becoming increasingly diverse there are a growing number of linguistically and culturally diverse students confronting school personnel who remain frustrated with limited resources and strategies: "there is an array of racial, ethnic, cultural, and socio-economically diverse students, families, and communities…that continue to emerge" (Garrett & Morgan, 2002, p. 268). Therefore, as stated by LeFlore (2005), it is more appropriate to emphasize the phenomenon of increasing diversity in America since it is a society of multiple cultures and cross-cultural influences. "The United States is a society diverse

in culture, race, ethnicity, religion, and income; one struggling with a past involving oppression, inequality, and buried knowledge. In order to heal and strengthen, we must educate ourselves about the many strands of our history; grow to appreciate and enjoy the multiple cultures, races, and realities; and recognize the consequences of current and historical oppression" (Schmitz, Stakeman, & Sisneros, 2001, p. 612).

Changing Texas Demographics

According to the County Information Project published by the Texas Association of Counties, the State of Texas is growing, with more people, more urbanicity, and more ethnic diversity. The state's population grew 16 percent between 1990 (16.98 million people) and 2000 (20.85 million); this growth was the result of 23 percent international migration, 19 percent domestic migration, and 58 percent natural increase (Reid, 2001). More recent population projections indicate a wide spectrum of possible growth. Under three scenarios (natural increase only without in or out migration, future net migration at half the level of the years 1990 to 2000, and future net migration remaining at the same level as in the years 1990 to 2000) the statewide population of the year 2040 may range from 25.56 million, to 35.01 million, to 50.58 million persons. The corresponding projected population changes indicate extensive percentage rates of growth people of color. The projected rates of growth are, for African Americans (between 35.6 to 65.0 percent increase), Hispanics (175.7 to 348.7 percent increase), Asian/Pacific Islanders and Native Americans (185.0 to 546.8 percent increase), as compared to Whites (2.8 to 10.4 percent increase) (Murdock, White, Hoque, Pecotte, You, & Balkan, 2002).

The high population growth rate is expected to impact the public schools. Under the different growth scenarios (natural increase only without in or out migration, future net migration at half the level of the years 1990 to 2000, and future net migration remaining at the same level as in the years 1990 to 2000), more recent projections for growth in public elementary and secondary schools for the period 2000 to 2040 indicate an increase of between approximately the current 4.00 million, to 5.09 million, to a projected maximum of 7.05 million. The percent change by ethnicity of Texas public elementary and secondary school enrollment in 2040 is projected to be 8.3 percent for African American students, 66.3 percent Hispanic students, 5.5 percent Asian/Pacific Islander and Native American students, and 19.9 percent White students (Murdock, et al., 2002).

A projected change in public school programs participation for the period 1990 to 2030 indicated that there would be an over proportional student growth in Economically Disadvantaged, At-Risk, Limited English Proficient, and Bilingual programs. Simultaneously, an almost proportional rate of dropouts, and a less than proportional decrease in the number of Gifted and Talented, Special Education, and Career and Technology Education program participation was projected to take place (Murdock, Hoque, Michael, White, & Pecotte, 1997). Recent projections for the percent change in enrollment in selected elementary and secondary school programs by the year 2040 are all indicating growth, with 119.9 percent in students classified as Economically Disadvantaged, 101.9 percent in students classified as At-Risk, 188.1 percent in students classified as Limited English Proficient program participants, 186.8 percent students

classified as Bilingual program participants, 48.5 classified as Gifted and Talented program participants, 64.7 percent classified as Special Education program participants, and 69.9 classified as Career and Technology Education program participants (Murdock, et al., 2002).

Data from the Academic Excellence Indicator System (AEIS) of the Texas Education Agency indicate that some of the projected changes in public school programs are already evident. The AEIS details various school related data for the State of Texas at the grade, campus, district, county, and state levels. According to the AEIS report for the 2004-2005 school year there were 4,383,871 students enrolled in Texas public schools. This population was reported to be 14.2 percent African American, 44.7 percent Hispanic, 3.0 percent Asian/Pacific Islander, 0.3 percent Native American, and 37.7 percent White. It is of interest to note that the total graduates for the class of 2004 were quite different in terms of ethnic breakdown, with 13.6 percent African American, 35.0 percent Hispanic, 0.3 percent Native American, 3.4 percent Asian/Pacific Islander, and 47.7 percent White. The 2004-2005 statewide student population included 54.6 percent classified as Economically Disadvantaged, 45.8 percent classified as At-Risk, 15.6 percent classified as Limited English Proficient, 14.4 percent classified as Bilingual program participants, 7.7 percent classified as Gifted and Talented program participants, 11.6 classified as Special Education program participants, and 20.3 percent classified as Career and Technology Education program participants (Texas Education Agency, 2006).

Human Behavior Theories

Human behavior is a complex field of study that can be used to explain and predict individual behavior. Isaacson and Hunt (1971) state that the simplest explanation for behavior is the concept that humankind seeks to maximize its pleasure and minimize its pain. This concept of pleasure maximization and pain minimization can be traced back to the Hedonistic philosophy of the Greeks (Isaacson & Hunt, 1971; Ryan & Bonfield, 1975), and that behavior can be predicted from behavioral intentions (Becker & Gibson, 1998). Modern attempts to explain human behavior have given rise to the understanding that much human behavior, especially that involving interactions with others, is subject to human reasoning. Certain elements of human behavior can be explained through use of social psychology's attitude-behavior theories. These theories include the basic attitude model (Rosenberg, 1960a; 1960b), Fishbein's original model of attitude (Fishbein, 1967), the theory of reasoned action (Fishbein & Ajzen, 1973), and the theory of planned behavior (Ajzen, 1985, 1991).

The Basic Attitude Model

Rosenberg's work was based on a functional approach to attitudes. Rosenberg (1960a) hypothesized that attitudes consist of beliefs about the potentialities of an object that include the cognitive component, value-attaining positive states or value-blocking negative states, and the affective component, that a value is given to the subject in terms of source of satisfaction. Additionally, Rosenberg mentioned the possibility of the existence of intervening variables, but did not incorporate such variables into his theoretical structure. In a further study, Rosenberg (1960b) confirmed the cognitive and

affective components of attitude. The basic model of Rosenberg (1960a, 1960b,) states that attitudes are the sum of the evaluated beliefs (see Figure 2.1).

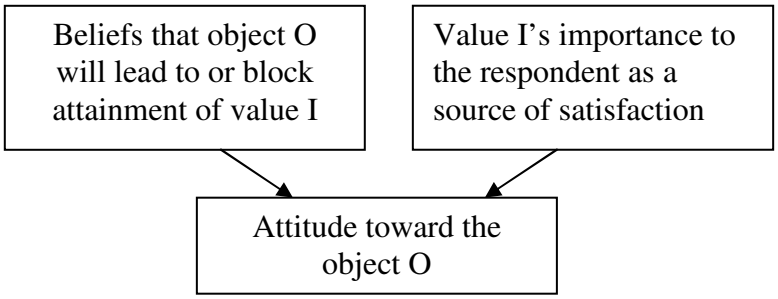

FIGURE 2.1. Rosenberg's Basic Attitude Model. Explains that attitudes toward a given object are composed of beliefs that an object will block or lead to attainment of a value (the cognitive component) which is important as a source of the respondents' satisfaction (the affective component) (Rosenberg, 1960a)

According to Rosenberg, "the elicitation and measurement of such attitudinal cognitions and attitudinal affects would help to reduce some of the major problems encountered in survey and experimental studies of social attitudes" (Rosenberg, 1960b, p. 320).

Fishbein's Attitude Model

The initial basis of the theory of reasoned action was formed 1963, when Martin Fishbein developed a behavior theory structure to explain relationships between attitude and behavior (Cohen, Fishbein, & Ahtola, 1972). The theory advanced the idea that an individual's intention to perform a specific act with respect to a given stimulus object in a given situation is a function of the subject's beliefs about the consequences of performing a particular behavior in a given situation (the probability that the performance of a particular behavior will lead to some consequence); and the subject's

evaluation of that consequence (Figure 2.2). Fishbein also included the consideration of multiple consequences/outcomes, resulting in a set of beliefs and evaluations pertaining to each of the relevant consequences of performing the act.

Fishbein refers to the 'degree to which the individual thinks a specific response will lead to a reinforcement and reward' and the 'value the individual places on a reward' as attitude-toward-the-act (Fishbein, 1967; Ryan & Bonfield, 1975). Summary results of five British studies support Fishbein's contention that the attitude toward the act is a more appropriate predictor of the behavioral intention than other factors. Summary results of twelve American studies indicated that the model is of value in predicting and explaining variance in intentions and behavior, and that the predictive power of the model is generally higher for studies relating to social psychology (Ryan & Bonfield, 1975).

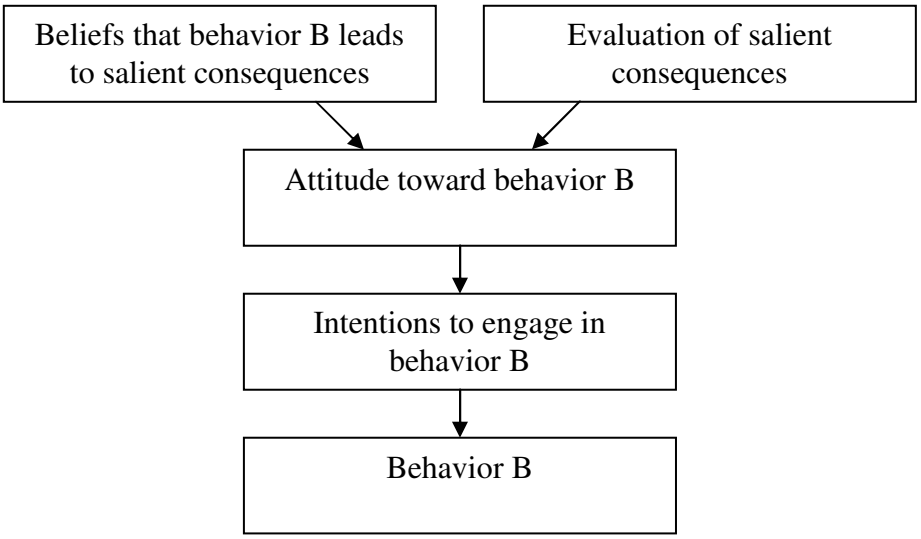

FIGURE 2.2. Fishbein's Attitude Model. Explains that attitudes are the sum of evaluated beliefs (Fishbein, 1967).

The Theory of Reasoned Action

The theory of reasoned action (TRA) was largely based on Fishbein's 1963 behavior theory work. As illustrated in Figure 2.3, the TRA was designed to model how a specified behavior under an individual's volitional control is produced by that individual's beliefs, attitudes, and intentions toward that behavior, and included the element of subjective norm (the individual's perceptions of the social pressures on him/her to perform or not perform the behavior) in the intention component (Fishbein & Ajzen, 1973; Ajzen and Fishbein, 1980; Hankins, French, & Horne, 2000). According to Ajzen and Fishbein (1973), the relative importance of the subjective norm and the attitude toward the behavior or act may vary with the type of behavior, the situation, and individual differences. Literature also notes that variables other than attitude and subjective norm indirectly influence the intention to act and therefore behavior (Hankins, et.al, 2000; Zint, 2002). The TRA stated that voluntary/volitional behavior can be predicted by an individual's intention to perform that behavior. This is a function of attitude toward the behavior or act, namely an evaluation of the behavior as being favorable or unfavorable, and the perceived social pressure to perform or not perform the behavior, namely the subjective norm (Ajzen & Fishbein, 1980; Hankins, et al., 2000; Zint, 2002). See Figure 2.3 for the model of this theory.

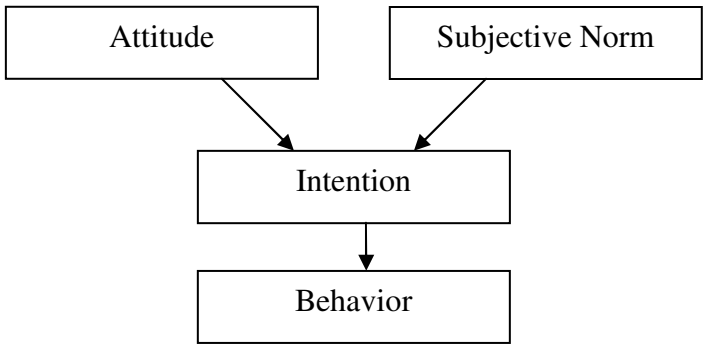

FIGURE 2.3. Fishbein and Ajzen's Theory of Reasoned Action Attitude Model (Fishbein & Ajzen, 1973; Ajzen & Fishbein, 1980; Hankins, French, & Horne, 2000)

The TRA can be modeled as one multiple regression and one correlation as seen in Figure 2.4 (Hankins, et al., 2000, p. 154). Multiple regression is a statistical procedure for determining the magnitude of a relationship between a criterion (dependent) variable and a combination of two or more predictor (independent) variables (Gall, Borg, & Gall, 1996) that refer to a covert behavior. The relationship between the criterion and predictor variables is measured at a particular point in time, in a cross sectional manner. In contrast, a correlation is a mathematical expression of the direction and magnitude of the relationship between two measured variables (Gall, Borg, & Gall, 1996). This relationship is overt, and is measured in a longitudinal manner (across a particular span of time).

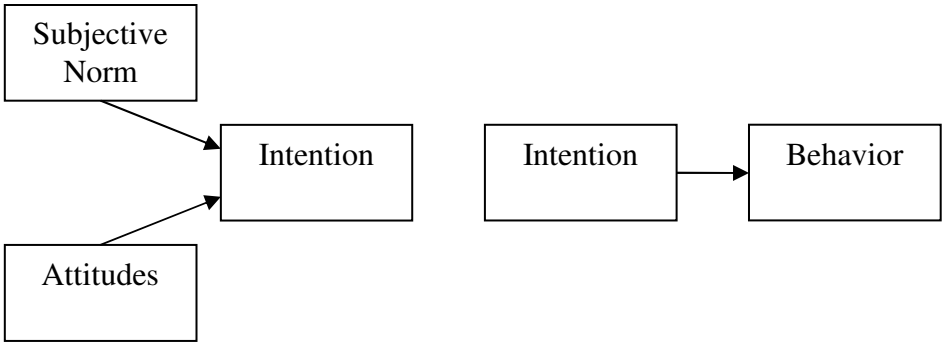

FIGURE 2.4. The Theory of Reasoned Action Research Model (Hankins, French, & Horne, 2000)

The TRA and derivatives of the model have been used in business, health care, psychology, sociology, and other applied sciences, and has appeared in articles in such journals as the *Journal of Consumer Research, the Journal of Marketing, the Journal of Marketing Research, Advances in Consumer Research, the Journal of Personality and Social Psychology, the Journal of Experimental Psychology, the Journal of Social Psychology, the Journal of Applied Social Psychology, and the Journal of Applied Psychology.* Multiple meta-analyses on the theory of reasoned action in a variety of disciplines have been identified; Sheppard, Hartwick, and Warshaw (1988) evaluated eighty-seven separate studies across a variety of fields. Zint's meta-analysis "reported a mean multiple correlation of .66 (r) for the intention to act from attitude toward the behavior and subjective norm, and a mean correlation (r) of .53 between intention to act and behavior…Results of [fifteen] studies conducted with teachers also support the TRA [theory of reasoned action]" (Zint, 2002, p. 824). Zacharias (2003) found that the theory

of reasoned action model confirmed that beliefs affect attitudes, which then in turn affect intentions.

The Theory of Planned Behavior

The theory of planned behavior "is an extension of the widely applied theory of reasoned action" (Conner, Povey, Sparks, James, & Shepherd, 2003, p. 76). Though the theory of planned behavior is over thirty years old, yet still has applications today and into the twenty-first century (Zint, 2002). The theory of planned behavior, based on the theory of reasoned action, holds that intention is a determinant of behavior. Attitudes (determined by beliefs and evaluations), perceived behavioral control, and subjective norms are functions of intentions (Zint, 2002; Conner et. al., 2003).

The theory of reasoned action deals with only those behaviors over which the individual has volitional control (Ajzen & Fishbein, 1980). However, Ajzen (1988) noted that the ability to carry out intention often depended on the level of volitional control that individuals have over their behavior. Volitional control refers to "behaviors that do not require special skills, resources, or support and hence can be performed at will" (Zint, 2002, p. 827). Where little volitional control exists, the intention to act, and thus behavior, will be affected. It was predicted that when an individual had volitional control, attitude would play a significant part in predicting intentions and thus behavior. If an individual had little volitional control, the effect of attitude on intention was much less significant in predicting behavior (Ajzen, 1985, 1988, 1991; Zint, 2002). Therefore, the Theory of Planned Behavior (TPB) was developed to model "how all behaviors are produced, not just those under volitional control. To achieve this wider applicability, a

further concept was introduced: the perceived ease or difficulty of performing a behavior, or 'perceived behavioral control' in contrast to the TRA" (Hankins, et al., 2000). This perceived behavioral control echoes Bandura's work on self-efficacy, "the conviction that one can successfully execute behavior" (Bandura, 1977, p. 3; Zint, 2002, p. 827).

The TPB has become the dominant social-psychological model for relating attitudes to behavior (Conner, et al., 2003). Incorporated into the TPB was the recognition that behavior was not only determined by intentions, but also by an individual's actual degree of control over the behavior, which was operationalized as a measure of perceived behavioral control (Hankins, et al., 2000; Ajzen, 1988), namely the "belief as to how easy or difficult performance of the behavior is likely to be" as a predictive indicator of intention to act and behavior. Thus, the path between perceived behavioral control and intention to act reflects an individual's perceived control of the behavior, whereas the path between perceived behavioral control and behavior reflects actual control over the behavior (Ajzen, 1985; Zint, 2002, p. 827). See Figure 2.5 for a presentation of the TPB model.

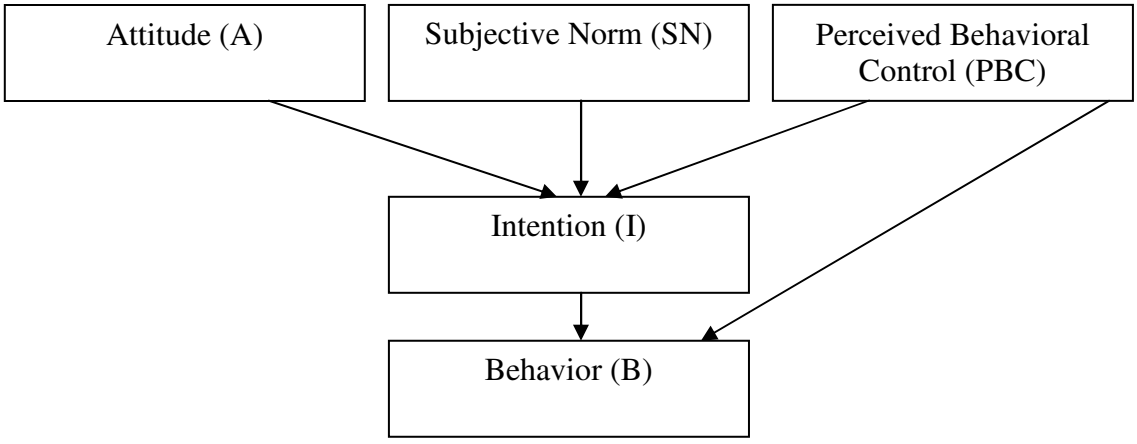

FIGURE 2.5. Ajzen's Theory of Planned Behavior Model (TPB) (Ajzen, 1988; Zint, 2002)

The relative weights of the three predictive elements of intention vary with individual differences as well as the type of behavior and situation under consideration (Ajzen, 1985, 1988, 1991; Zint, 2002). As seen in Figure 2.6, the TPB can be modeled as two multiple regressions.

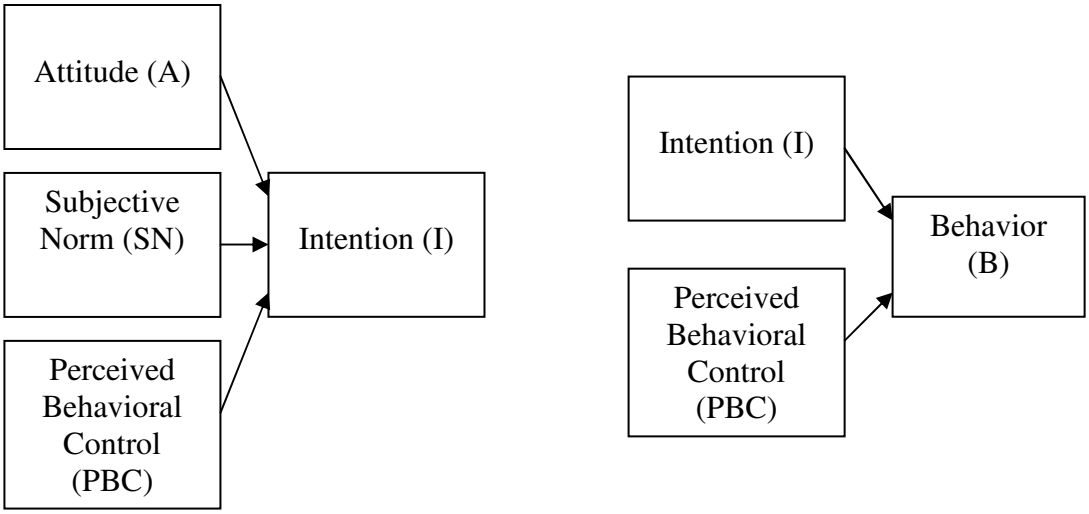

FIGURE 2.6. The Theory of Planned Behavior Research Model (Hankins, French, & Horne, 2000)

According to Hankins, et al., (2000), the theory of planned behavior necessarily incorporates two multiple regressions. In the first multiple regression attitudes, norms, and perceived behavioral control act as independent variables while intention serves as the dependent variable. In the second multiple regression, intentions and perceived behavioral control are independent variables and the overt behavior functions as the dependent variable. In both cases, the dependent variable is derived from multiple independent variables. Hankin's Regression One TPB model as presented in Figure 2.6 will provide the theoretical basis for this study and will require a cross sectional research design of covert intentions. Hankin's Regression Two TPB model was excluded because it would require a prohibitively time consuming longitudinal research design, and would face significant legal confidentiality and reliability problems related to studies

requiring objective observation and/or self reporting procedures regarding individual's overt behaviors. In order to achieve the research objectives set for this study, a General Principal's Diversity Intention (GPDI) model was developed and is presented in the following Figure 2.7.

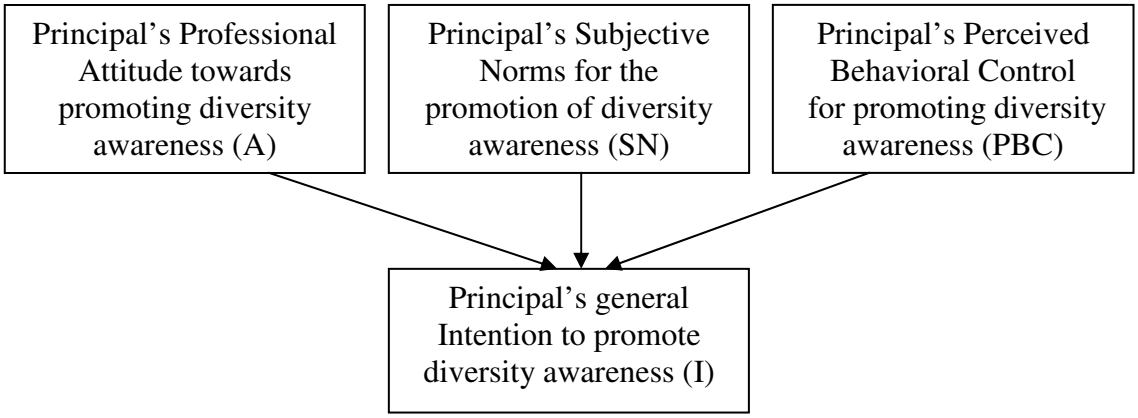

FIGURE 2.7. The General Principal's Diversity Intentions (GPDI) Model

This review of literature presented an overview of principals, principal's roles, and principal leadership (including standards). Following this was a discussion of diversity and a presentation of the principal's professional beliefs regarding diversity and reflecting on the expected demographic changes within the nation and the state over the next thirty years which will impact schools was presented. An overview of human behavior theories was then presented with the basic attitude model, the Fishbein attitude model, the theory of reasoned action, and the theory of planned behavior. Finally, the GPDI model was offered. The GPDI model represents the operational conversion of the theoretical constructs incorporated in the Hankin's TPB Regression One Model. This

study used an innovative approach in combining the Theory of Planned Behavior (Ajzen, 1988) with the Professional Educator's Belief Scale (Pohan & Aguilar, 1999) in order to model principals' general intentions to promote an awareness of diversity, congruent with the Texas standards for principal certification and evaluation/assessment. The methodology for this study is described in Chapter III.

CHAPTER III

METHODOLOGY

This chapter discussed the research methodology. There were three research questions that guided this study. These questions were:

1. Can a theory of planned behavior approach be used to assess school principals' professional intentions to promote diversity awareness?
2. What are the intentions of Texas principals to promote diversity awareness in general and among the five diversity dimensions of disabilities, gender, language, racial/ethnic, and social class in their campus community? and
3. Do these intentions differ among five demographic characteristics of race/ethnicity, gender, age, degree, and campus type?

To address these research questions, a primary research methodology was necessary as presented in the following detailed research design, population and sampling method, instrumentation (including pilot test of the instrument, data collection, data entry), and statistical methodology for analysis of the primary response data. Also, in order to address the third research question, a secondary data analysis of selected demographic characteristics as provided by the Texas Education Agency's 2004-2005 Role Master File was incorporated via cross-referencing into the primary respondent data.

Research Design

The research design of this study could be defined as an "ex post facto" research, which is according to Kerlinger "a systematic empirical enquiry in which the scientist

does not have direct control of the independent variables because their manifestations have already occurred" (Kerlinger, 1973, p. 379). The survey for this research was effectively gathered at a single point in time. This type of survey research was identified as being cross-sectional, as compared to longitudinal research designs where measures are taken repeatedly over time. The GPDI model contained three major predictor constructs. They were attitudes, subjective norms, and perceived behavioral control. Also, the GPDI model contained one criterion variable, namely the intentions of principals to promote diversity awareness in the campus community.

Figure 3.1 shows the operationalized GPDI model, as it was measured by a sample survey in its entirety to examine principals' intentions to promote diversity awareness in their campus community.

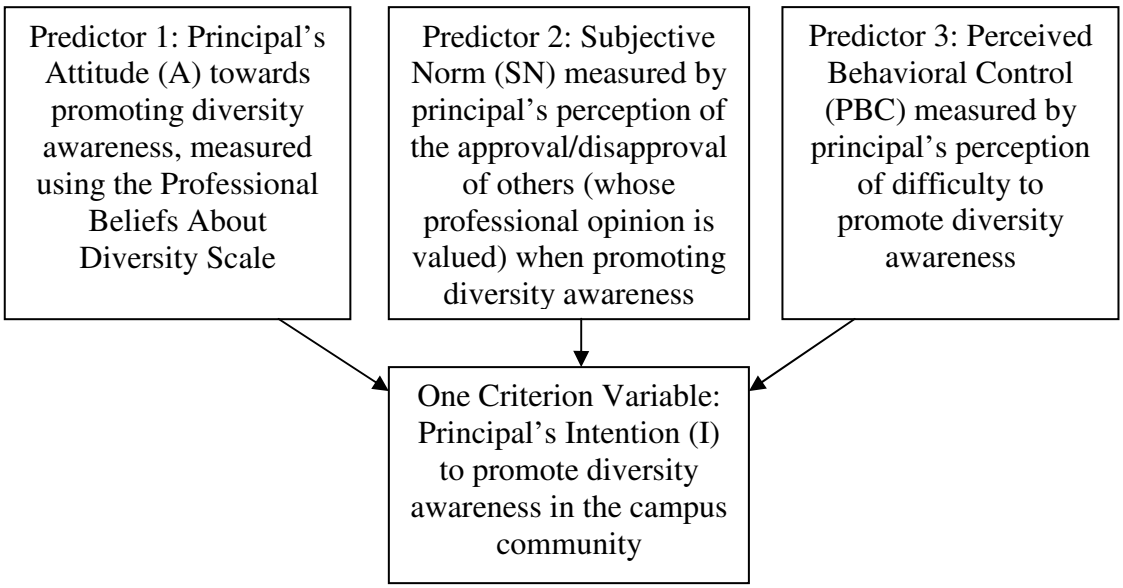

FIGURE 3.1. The Operationalized General Principal's Diversity Intentions (GPDI) Model

Pohan and Aguilar identified seven types of diversity, namely disabilities, gender, language, racial/ethnic, religious, sexual orientation, and social class diversity. Sub-models of the GPDI were used to measure principals' intentions to implement awareness of these various dimensions of diversity. A decision was made that only those types of diversity that were measured by three or more questions on the instrument would be included. Therefore, since sexual orientation diversity and religious diversity were addressed by less than three questions, these two types of diversity would not be measured separately. Each of the remaining five types of diversity awareness (disabilities; gender; language; racial/ethnic; and social class) was measured. The principals' intention to emphasize diversity awareness in the campus community was also measured. The operationalized models for each of these types of diversity measured are presented in Figure 3.2 through Figure 3.6. Each figure represents the PDI for a particular dimension of diversity. The subset of questions regarding attitude for the various dimensions of diversity are taken from the complete scale.

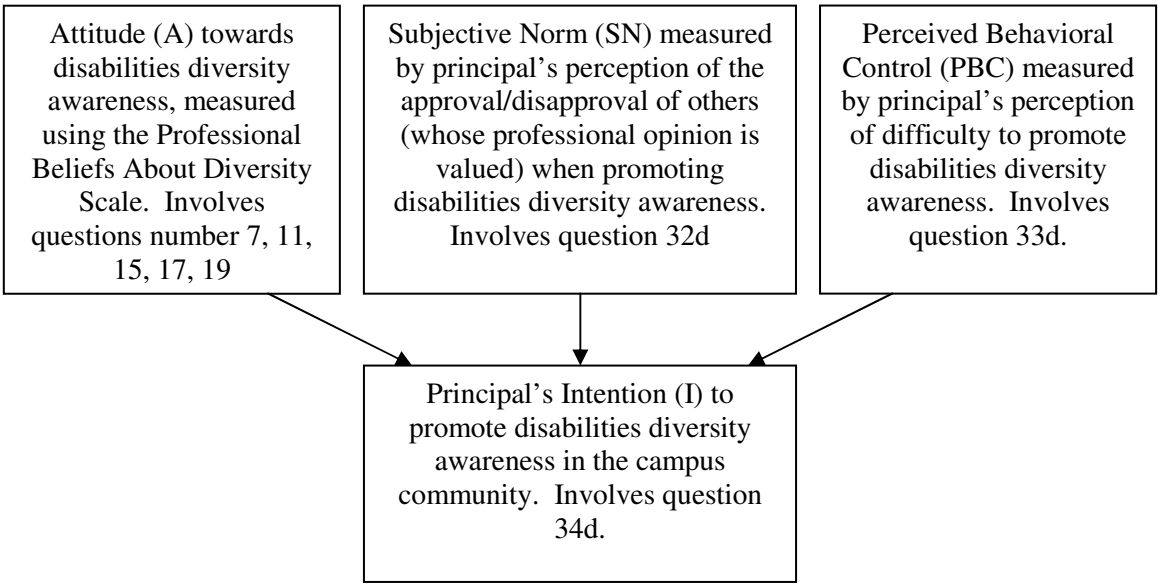

FIGURE 3.2. Operationalized Principal's Diversity Intentions (PDI) Model for Disabilities Diversity

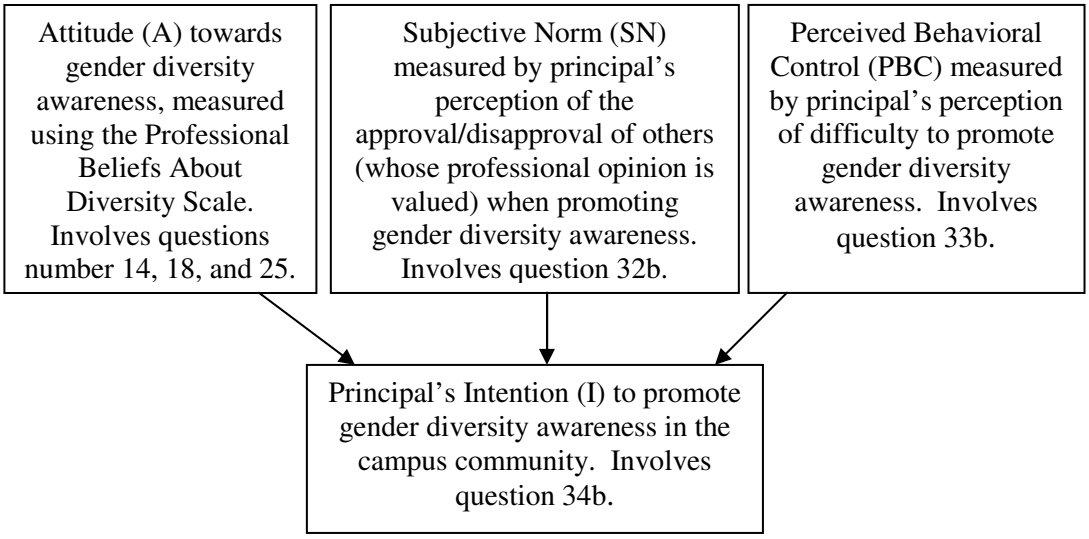

FIGURE 3.3. Operationalized PDI Model for Gender Diversity

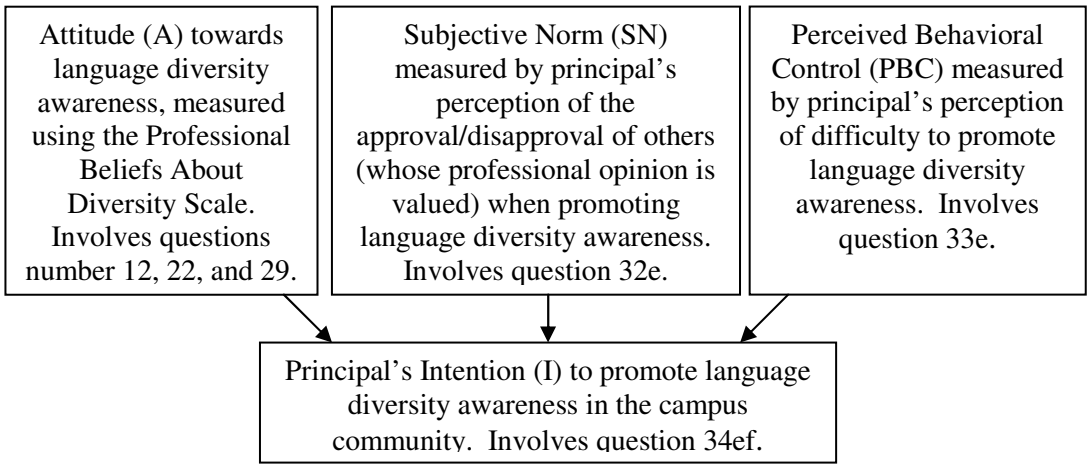

FIGURE 3.4. Operationalized PDI Model for Language Diversity

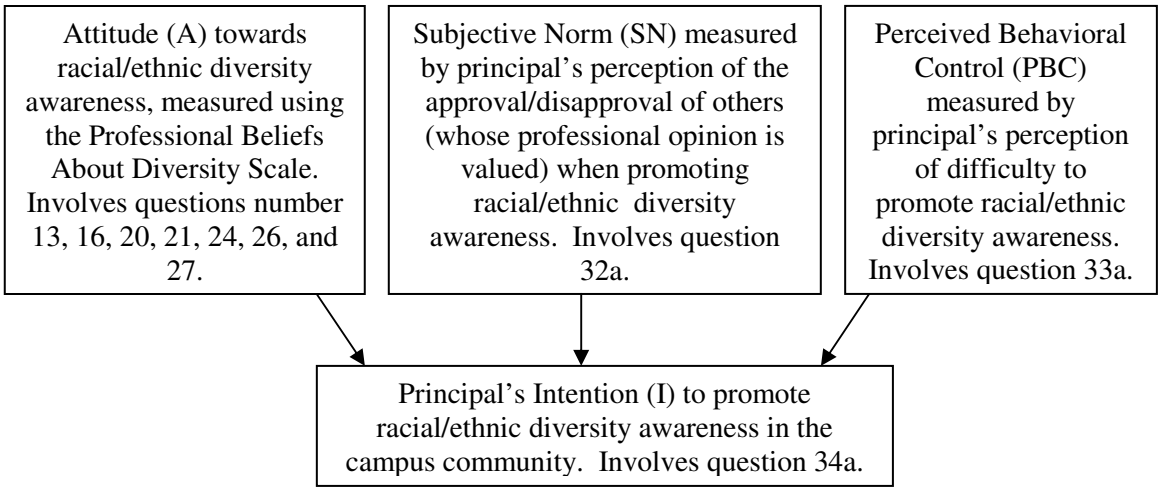

FIGURE 3.5. Operationalized PDI Model for Racial/Ethnic Diversity

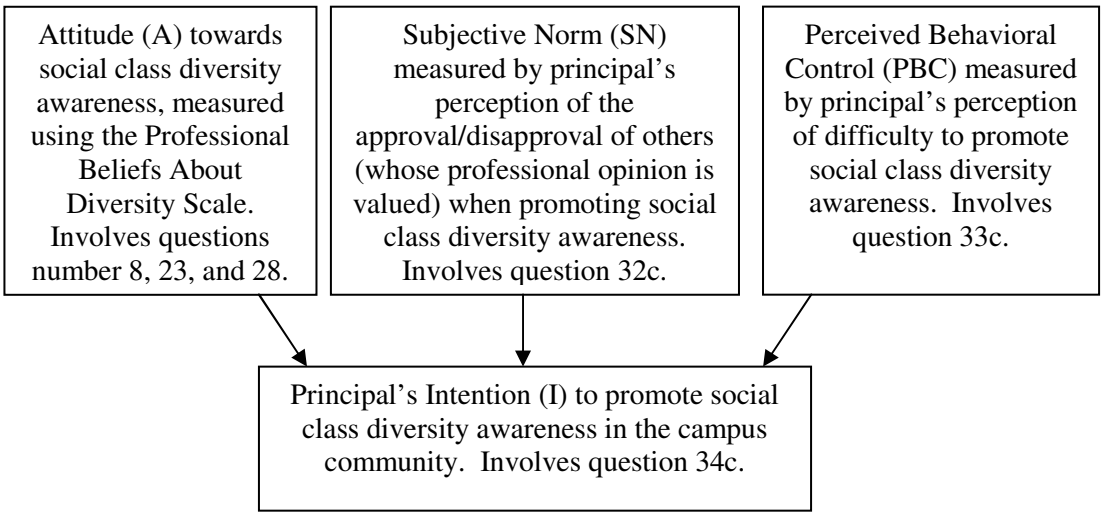

FIGURE 3.6. Operationalized PDI Model for Social Class Diversity

The General Principal's Diversity Intentions (GPDI) model is referred to hereafter as the general model. The five Principal's Diversity Intentions (PDI) models for five dimensions of diversity (disabilities, gender, language, racial/ethnic, and social class) under scrutiny in this study are referred to hereafter as the diversity sub-models and are listed as the PDI-D, PDI-G, PDI-L, PDI-R/E, and PDI-SC (Table 3.1).

Table 3.1
Acronyms for Five Diversity Sub-Models

Acronym	Sub-Model
PDI-D	Principal's Diversity Intentions for Disabilities
PDI-G	Principal's Diversity Intentions for Gender
PDI-L	Principal's Diversity Intentions for Language
PDI-R/E	Principal's Diversity Intentions for Racial/Ethnic
PDI-SC	Principal's Diversity Intentions for Social Class

The model and sub-models contain the attitude, subjective norm, perceived behavioral control and intention constructs in order to predict the principals' intentions to promote diversity awareness. Several covariates were measured to determine whether there are significant differences in responses to each of the research questions. These covariates were all based on five of the respondent's demographic characteristics. These characteristics are race/ethnicity, gender, age, degree, and campus type.

Instrumentation

The instrument for the data collection was a questionnaire that incorporated the following: (a) Professional Beliefs About Diversity Scale (PBADS) (Pohan & Aguilar, 1999) in its entirety, with a consent form and five demographic questions preceding the scale; and (b) question matrices measuring the subjective norm, perceived behavioral control, and intentions after the scale. All the questions that were used in measuring the attitudinal construct were copied verbatim from the existing PBADS (Pohan & Aguilar, 2001), which was extensively tested by the authors along a variety of reliability and validity tests. Written permission to use the PBADS was received from Pohan. This scale has been subject to several stages of scale development including a pilot version in 1992, a preliminary version in 1993, a field test version in 1994, the revised version in 1995 and again in 1998, and the final scale in 1998. The authors have conducted 12 separate field tests with over 2,000 subjects, across five states and the data reported support the conclusion that this scale is both reliable and valid measures of one's professional beliefs about diversity. The high internal consistency of the PBADS was seen with Cronbach alpha scores of .817 for the pre-test, and .855 for the post-test

(Pohan & Aguilar, 1999; Pohan & Aguilar, 2001). Tests for construct validity were conducted at the preliminary and field testing stages of instrument development, using correlational analysis with the variables of age, gender, cross-cultural experience, multicultural coursework, and perceived knowledge levels regarding diversity topics. Age, cross-cultural experience, multicultural coursework, and perceived knowledge levels were not found to be significantly related to belief scores. However, "results indicated that women were more accepting of diversity than were men." One interpretation of these results is "that women are more accepting of diversity than are men…women held more positive attitudes than did men, which included issues of culture, ethnocentrism, and racism" (Pohan & Aguilar, 2001, p. 174).

This instrument was administered to the total random sample via the internet, as solicited by an e-mail containing a link to the survey. The instrument is attached in Appendix A. The questionnaire's consent form contained within question 1 gave the participants a chance to opt out of completing the survey by simply not clicking on the survey link. If the participants indicated their consent by clicking on the "I consent" button, they presented with the questionnaire on-screen. Questions 2 through 6 referred to the demographics of the respondents, which provided a means for verification when cross-referencing the secondary data from the Role Master File (Texas Education Agency, 2005b). Questions 7 through 31 were statements measuring the professional attitude of principals toward diversity on their campus (Pohan & Aguilar, 2001). The responses to these statements were based on a five-point Likert scale ranging from strongly agree to strongly disagree. The Likert scale is a measure on which individuals

check their level of agreement with various statements about an attitude object. A five-point Likert scale consisting of strongly agree, agree, undecided, disagree, or strongly disagree is often used in attitude research instruments (Gall, Borg, & Gall, 1996). Question 32 had five sub-elements which were intended to measure the subjective normative effects (opinions of others) upon the principal on a five-point Likert scale ranging from strongly approve to strongly disapprove. Question 33 measured the level of perceived behavioral control (difficulty) of the principal regarding the implementation of diversity along a five point Likert scale ranging from very difficult to very easy. Finally, question 34 which also had five sub-elements measured the principals' intentions to implement an awareness of diversity in the campus community beyond the level recommended by the principal's district. Responses were measured on a five point Likert scale from very likely to very unlikely (Ajzen, 1991; Pohan & Aguilar, 2001).

Pilot Test of the Instrument

A focus group of six principals was selected via convenience sampling to pilot test the instrument. These subjects responded to the instrument and provided feedback on response time. Also, this group was asked to evaluate the questionnaire in terms of face validity, i.e., mainly on the issue of clarity of instructions and questions (SPSS, Inc., 2002). The test of the instrument was limited to the face validity issue only, due to the fact that the structure itself (the necessity to measure intentions, norms, attitudes, and control) as well as the language that was to be used in order to measure these constructs was repeatedly tested by a significant number of researchers who have utilized the TPB format for a variety of studies as mentioned in the literature review.

The pilot test subject group consisted of two principals each from elementary, middle, and high schools. There were four women and two men, ranging in ages from 39 to 56 years in this group. These principals were presented with the actual electronic version of the instrument, and their time to respond to the instrument ranged from eleven minutes to thirteen minutes. No verbal assistance was requested or provided in the pilot test. All participants in the pilot test answered all questions on the instrument. The comments from these principals were related to the instructions and the formulation of the question as they appear in the survey. In general, the principals participating in this pilot study reported that the instrument was clear in both its instructions and the questions it contained.

Population and Sampling Design

Population

The subjects that made up the population for this study were all the full-time, public school principals serving in regular instructional campuses in Texas during the 2004-2005 school year as reported on the Texas Education Agency's Role Master File (Texas Education Agency, 2005b). This statewide census contained in the Role Master File for the school year 2004-2005 of the Texas Education Agency identified 8,281 school principals employed in Texas, of which 7,944 were principals in non-chartered, public schools; and this population yielded 6,965 principals at regular instructional-only campuses; of these Texas principals in public, regular instructional-only campuses, 6,161 were full-time principals.

Sampling

The following procedure was followed. A random sample of 476 subjects was selected from the population of 6,161 full-time, public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year that was based on school names contained in the Role Master File.

1. Once identified, the school names were cross-referenced with principal names and e-mail addresses in the AskTED Texas Education Directory that was maintained by the Texas Education Agency (Texas Education Agency, 2005a).
2. The names and e-mail addresses of those principals at schools included in the sample but not available in the AskTED directory were then identified by conducting an Internet search based on school name; in the event that one of the randomly selected principals did not have an identifiable e-mail account, that principal was dropped from the sample.
3. A list of principal names and e-mail addresses was then compiled (from data in the AskTed directory and the internet search), constructed in a spreadsheet, and electronically cut-and-pasted into software at the SurveyMonkey.com website.
4. The SurveyMonkey software was utilized to generate an e-mail invitation to these principals to participate in the study. The e-mails included an electronic link to the online survey. Sixteen of the e-mail invitations were returned as the school district server or filtering software would not allow for e-mails from SurveyMonkey.com as it was an unauthorized site, or the intended recipient of the e-mail was no longer listed at the district.

5. The principals indicated their initial willingness to participate in the study by following the electronic link.
6. Principals wishing to participate in the study had to select the "I consent" button at the bottom of the consent form contained in the survey itself.
7. Eight e-mails were returned due to the fact that the principal had selected the "I do not consent" button on the instrument's consent form.
8. Those principals who consented to continue the survey were presented with the complete electronic instrument.

Response Rate

The overall response rate was 151 respondents out of a sample of 476 principals, representing a response rate of 31.72 percent of the total number of questionnaires that were sent out to potential respondents. This response rate was well within the average response rates for questionnaires and surveys as determined by Phillips and Phillips (2004) "based on input from hundreds of participants in our workshops, as well as the experience of our consulting clients" (Phillips & Phillips, 2004, p. 40). According to these authors, a thirty percent response rate is appropriate. The 151 respondents exceeds the minimum sample size of 147 that is needed under the requirements of a 95 percent confidence level, an eight percent margin of error, and a population of 6,161 full-time public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year. This result is achieved by using both the sample size calculator of Creative Research Systems (2005) and the sample size calculator by RaoSoft, Incorporated (2005), an innovator in online survey data collection efforts on behalf of

many federal government agencies. An analysis regarding the quality of the dataset of the 151 usable responses to the survey is presented in the following Table 3.1 through Table 3.3. Ethnicity, gender, and geographical Educational Service Center (ESC) region distributions of the principals total population was compared to the distribution of the cases along these variables in the sample drawn and in the final usable response data set. Distribution of principal's ethnicity, gender, and geographical Educational Service Center (ESC) region distributions of the total population was compared to the distribution of the cases along these variables in the sample drawn and in the final usable response data set.

Table 3.2
Comparison of Principal Ethnicity by Total Population, Sample, and Usable Responses Received

Ethnicity	Population % N=6,161	Sample % N=476	Responses % N=151
African American	10.8	8.8	4.3
Asian American	0.2	0.2	0.2
Native American	0.1	0.6	0.6
Hispanic	19.6	22.2	25.9
White	69.3	68.2	69.8
Total*	100.0	100.0	100.0

*Note: N times the percent may not equal a whole number due to rounding.

The comparison indicates with a few exceptions that there is a high level of external validity. For example, African American principals make up 10.8 percent of the population and were represented in the response rate at 4.3 percent, as seen in Table 3.3.

Table 3.3
Comparison of Principal Gender by Total Population,
Sample, and Usable Responses Received

Gender	Population % N=6,161	Sample % N=476	Responses % N=151
Female	58.2	59.5	62.3
Male	41.8	40.5	37.7
Total*	100.0	100.0	100.0

*Note: N times the percent may not equal a whole number due to rounding.

Table 3.3 illustrates that the gender distribution percentage of females to males was very consistent between the population and the sample. However the percentage of responses to the survey was slightly higher for females. This may be reflective of Pohan and Aguilar's assertion that women are more accepting of diversity than were men, and that they held more positive attitudes on issues of culture, ethnocentrism, and racism than did men (Pohan & Aguilar, 2001).

Table 3.4
Comparison of Principal by Education Service Center (ESC) Region by Total Population, Sample, and Usable Responses Received

ESC Region	Population % N=6,161	Sample % N=476	Response % N=151
1	6.8	9.0	9.3
2	3.1	2.2	4.9
3	1.6	1.6	1.2
4	16.4	15.1	13.6
5	2.1	2.0	1.9
6	3.5	2.6	3.7
7	5.2	3.3	2.5
8	2.1	2.4	0.6
9	1.6	1.8	1.2
10	14.9	14.7	19.8
11	10.8	10.6	8.0
12	4.3	3.1	4.9
13	6.5	7.7	10.5
14	1.6	1.8	2.5
15	1.5	2.0	1.9
16	2.7	3.3	3.1
17	3.0	4.5	1.2
18	2.1	2.6	3.7
19	3.2	2.6	1.2
20	7.2	6.9	4.3
Total*	100.2	99.8	100.0

*Note: Totals and N times the percent may not equal a whole number due to rounding.

Analysis of the population to the sample to the usable responses received based on the ESC region of the school in Table 3.4 indicates that population to sample percentages are consistent, with some variation in the percent of responses returned. This was most supportive in inferring the results that are achieved in the sample population could be generalized to the entire population of principals in Texas.

Data Collection

A random sample of 476 full-time public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year was selected. E-mail addresses for the sample principals were compiled from the TEA directory and from online resources.

1. These principals were then contacted by e-mail with a request to participate in this study.
2. Those subjects choosing to participate were, upon clicking their consent to participate, provided with an electronic questionnaire instrument to be completed on screen.
3. These responses were recorded electronically and then downloaded and prepared for statistical analysis using SPSS.

Entry of Data

There were a total of 151 complete and usable responses.

1. These responses to the instrument were downloaded from the SurveyMonkey.com website into a Microsoft Excel spreadsheet, and the columns of this spreadsheet were labeled with eight-character variable labels.
2. In order to prepare for the statistical analysis, the survey responses were reviewed visually to determine that responses in fields were consistent with the field requirements such that numeric responses were numbers, alphabetic responses were letters. The responses to open-ended demographic questions (those regarding years of experience in the field of education, years as a principal

in the current school, and total years of principalship) were examined and all responses with alphabetic or alpha-numeric values were manually converted into numeric values in order to facilitate statistical analysis.

3. There were 25 surveys that were eliminated as the respondents did not complete the entire instrument: (a) Ten cases were removed from the response set, as the respondents had ceased their answers as of question thirteen, namely "only schools serving students of color need a racially, ethnically, and culturally diverse staff and faculty;" (b) Six more cases were removed from the study as the respondents had stopped answering as of question fourteen, namely "the attention girls receive in school is comparable to the attention boys receive;" and (c) Nine more cases removed as the respondents had stopped answering as of question 16, namely "people of color are adequately represented in most textbooks today." The remaining cases were reviewed and found to be complete. These 151 cases made up the complete usable response set to be analyzed in this study.
4. Seven questions had reverse coding as per the general instructions of Pohan and Aguilar regarding Likert scale responses to the negatively formulated questions. The questions were number 7, 9, 11, 13, 24, 29, and 31 of the instrument. These questions were electronically reverse coded to maintain consistency with the format of the Professional Beliefs About Diversity instrument (Pohan & Aguilar, 1999).

5. The 151 cases were then merged with their corresponding data from the Texas Education Agency's 2004-2005 Role Master File data.
6. The complete merged data contained in this sample set was then loaded into SPSS 11.5 for statistical analysis.

Analysis of Data

The responses of the questionnaire administration entered into the SPSS database were analyzed at the univariate level by using quantitative statistical methods included in appropriate SPSS modules, utilizing descriptive methods such as frequencies, measures of centrality (means) and measures of dispersion (standard deviations). These methods were followed by analysis of variance to evaluate intentions in relation to five demographic variables, race/ethnicity, gender, principal's age, degree, and campus type. The findings were presented in a correlational matrix, an arrangement of correlation coefficients in rows and columns that facilitate viewing how each member of a set of measured variables correlates with all the other variables (Gall, et al., 1996).

The multivariate regression analysis was performed for purposes of testing the theoretical structure of the construct and finding relationships between a criterion variable and a combination of two or more predictor variables. Multiple regression "is one of the most widely used statistical techniques in educational research" because of its capability of handling interval, ordinal, or categorical predictor variables and requires an interval level criterion or dependent variable (Gall, et al., 1996, p. 433). Multiple regression "provides estimates both of the magnitude and statistical significance of relationships between variables" (Gall, et al. 1996, p. 434). In this study, the interval

level dependent variable intentions was regressed against the interval level independent variables of subjective norms, attitudes, and perceived behavioral control. Also, demographic variables of principals such as race/ethnicity, gender, campus type, and age, as control nominal level co-variates were utilized. Findings from the analyses are presented in Chapter IV.

CHAPTER IV

FINDINGS OF THE STUDY

In Chapter III, the data analysis related tasks were outlined. In this chapter, the description regarding the implementation of the tasks will be presented, including the analytical findings of the study. The research questions in this study were:

1. Can a theory of planned behavior approach be used to assess school principals' professional intentions to promote diversity awareness?
2. What are the intentions of Texas principals to promote diversity awareness in general and among the five diversity dimensions of disabilities, gender, language, racial/ethnic, and social class in their campus community? and
3. Do these intentions differ among five demographic characteristics of race/ethnicity, gender, age, degree, and campus type?

The research questions could be classified into two parts: First, the test of the theoretical structure, via the of the General Principal's Diversity Intentions (GPDI) model and the Principal's Diversity Intentions (PDI) sub-models for the diversity dimensions of disabilities, gender, language, racial/ethnic, and social class (research question number one); and second, the implementation/measurement of Texas principals' intentions using the confirmed operationalized theoretical structure, as presented by the GPDI and PDI models, as well as examining their possible related demographic covariate effects (research questions two and three).

Test of the Theoretical Structure

As indicated in Chapter III, a multivariate regression analysis was performed for purposes of testing the theoretical structure of the GPDI model and the PDI sub-models covering the five types of diversity examined in this study (disability, gender, language, racial/ethnic, and social class diversity) to examine the relationships between the theoretical variables as formulated in research question one:

Can a theory of planned behavior approach be used to assess school principals' professional intentions to promote diversity awareness?

To respond to this question, the following was done. The interval level dependent variable intentions was regressed against the interval level attitudes, subjective norms, and perceived behavioral control independent variables. The analysis of the results are presented for the General Principal's Diversity Intentions Model, followed by the analysis of the Principal's Diversity Intentions sub-models for each of the types of diversity under examination.

Tests of Data Normality, Attitude Scale Reliability, and Additivity

Tests of data normality, attitude scale reliability, and additivity were made to confirm that the basic conditions necessary for a valid regression analysis were present. This confirmation was necessary since multivariate analysis techniques share a foundation of assumptions that represent the requirements of the underlying statistical theory. The "most fundamental assumption is normality, referring to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution, the benchmark for statistical methods" (Hair, Black, Babin, Anderson, &

Tatham 2006, p. 79). The data set was tested for normality with a one-sample Kolmogorov-Smirnov (K-S) test (also known as a Z-score). The Kolmogorov-Smirnov test is "the principal goodness of fit test for normal and uniform data sets" (Gaten, 2000). Also, the significance level (alpha level) indicates the odds that the observed result was due to chance (Gaten, 2000). A two-tailed test of significance for the general model was performed. These test results are presented in Table 4.1.

Table 4.1
Kolmogorov-Smirnov Tests for Normality of the Data Distribution

Variable	Kolmogorov-Smirnov	Significance Level
Intentions	1.782	0.003
Subjective Norms	2.143	0.000
Perceived Behavioral Control	1.937	0.001
Average Attitude	1.334	0.057

The results indicate that the distribution of the response data regarding the independent variables attitude, perceived behavioral control, subjective norms, and the dependent variable intentions are significantly similar to a normal distribution at deviations of <0.06 (with the variable attitude being the only variable above the 0.05 level, at 0.057). This confirms that the condition of normality for the data has been analyzed and verified.

Further, the condition of possible significant multicollinearity was examined. Multicollinearity refers to the interrelations of predictor variables (Pedhazur, 1982); high intercorrelations can cause increasing sensitivity to sampling and measurement errors (Blalock, 1979; Ford, 2003). Another definition for multicollinearity is the "extent to

which a variable can be explained by other variables in the analysis. As multicollinearity increases, it complicates the interpretation…because it is more difficult to ascertain the effects of any single variable, owing to the variables' interrelationships" (Hair, et al., p. 557). Multicollinearity is a problem in that it if the variables under examination are not discriminant (i.e., there is a high degree of multicollinearity) then the predictive capability of those variables will also not be discriminant. This in turn can cause problems in the multiple regression analysis. "A direct measure of multicollinearity is tolerance, which is defined as the amount of variability of the selected independent variable not explained by the other independent variables…the tolerance value should be high, which means a small degree of multicollinearity (i.e., the other independent variables do not collectively have any substantial amount of shared variance)" (Hair, et al., 2006, p. 227).

The variance inflation factor (VIF) was also examined, the VIF is the inverse of the tolerance value; instances of higher degrees of multicollinearity are reflected in lower tolerance values and consequently higher VIF values. The VIF translates the tolerance value, which directly expresses the degree of multicollinearity, into an impact on the estimation process; as the standard error is increased, it makes the confidence intervals around the estimated coefficients larger, thus making it harder to demonstrate that the coefficient is significantly different from zero (Hair, et al., 2006, p. 227). Tolerance scores vary between 0 (perfect collinearity) and 1 (no collinearity) (Baten, 2006). The tolerance and VIF scores for the general model and the five sub-models are presented in Table 4.2. Again, the general model is referred to as the GPDI. The five

Principal's Diversity Intention (PDI) models for the various dimensions of diversity (disabilities, gender, language, racial/ethnic, and social class) are listed as the PDI-D, PDI-G, PDI-L, PDI-R/E, and PDI-SC.

Table 4.2
Regression Data Tolerance and Variance Inflation Factor Scores

Model	Model Element Score	Tolerance	VIF
GPDI	Average Score Attitude	0.939	1.065
	Average Perceived Behavioral Control Diversity	0.894	1.118
	Average Subjective Norm Diversity	0.878	1.139
PDI - D	Average Perceived Behavioral Control Disability Diversity	0.862	1.16
	Average Subjective Norm Disability Diversity	0.858	1.166
	Average Attitude Score Disability Diversity	0.886	1.128
PDI - G	Average Perceived Behavioral Control Gender Diversity	0.879	1.138
	Average Subjective Norm Gender Diversity	0.875	1.142
	Average Attitude Score Gender Diversity	0.988	1.013
PDI - L	Average Perceived Behavioral Control Language Diversity	0.977	1.024
	Average Subjective Norm Language Diversity	0.870	1.15
	Average Attitude Score Language Diversity	0.855	1.17
PDI - R/E	Average Perceived Behavioral Control Racial/Ethnic Diversity	0.978	1.023
	Average Subjective Norm Racial/Ethnic Diversity	0.873	1.146
	Average Attitude Score Racial/Ethnic Diversity	0.891	1.122
PDI - SC	Average Perceived Behavioral Control Social Class Diversity	0.872	1.147
	Average Subjective Norm Social Class Diversity	0.884	1.131
	Average Attitude Score Social Class Diversity	0.977	1.023

Tolerance levels from zero to 0.25 indicate a high degree of multicollinearity, and VIF values equal to or greater than 4.0 indicate multicollinearity as well (Ford, 2003; Norusis, 2002). Some of the highest tolerance scores are for "Average Attitude Social Class Diversity" and "Average Perceived Behavioral Control Language Diversity" both at .0977, and "Average Attitude Score Gender Diversity" at 0.998; this indicates low levels for multicollinearity, which is one of the significant conditions for the quality of a regression analysis. The corresponding VIF scores range from 1.013 to 1.17, indicative as well of low degrees of multicollinearity.

In order to test the reliability of the twenty-five items that were used as the measure of attitude toward diversity (Pohan & Aguilar, 2001), an item reliability test and a scale reliability test were performed. Cronbach alpha was used for both reliability tests. A Cronbach alpha score is a measure of reliability for a test instrument. "Reliability comes to the forefront when variables developed from summated scales are used as predictor components in objective models. Variables derived from test instruments are declared to be reliable only when they provide stable and reliable responses over a repeated administration of the test" (Santos, 1999). Cronbach alpha scores verify reliability by testing the degree to which scaled items truly represent the phenomena they are intended to measure (Cronbach, 1951; El Jaam, 2005). In general it should be noted that Cronbach alpha scores above 0.7 are considered to be reliable: Santos (1999) confirms that 0.7 is an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. Nonetheless, researchers have noted that

"attitude scales often yield lower alpha coefficients than tests of intelligence or other non-attitudinal constructs" (Pohan & Aguilar 2001, p. 173).

A comparison was made between the findings of this study and the comparable items as reported by Pohan and Aguilar (2001) in their Professional Beliefs about Diversity Scale. Pohan and Aguilar did not report on the item-by-item Cronbach alpha scores for the final 1998 scale; therefore, corresponding item-by-item alpha scores from the 1995 version of the Professional Beliefs about Diversity Scale are presented. Comparisons of these results are presented in Table 4.3. Pohan and Aguilar (2001) reported the overall Cronbach alpha score for this 1995 scale as .7500, and the Cronbach alpha score for their 1998 final version of the Professional Beliefs about Diversity Scale as .8170. The authors state that this score supports acceptable reliability for the professional beliefs scale (Pohan & Aguilar, 2001). The Cronbach alpha score for the Professional Beliefs about Diversity Scale as incorporated in the GPDI was .7861, which should be considered acceptable for terms of judging reliability. In order to test for additivity of the scale, an ANOVA analysis was performed to test the hypothesis that the items within the scale are non-additive. The hypothesis that the scale is non-additive is strongly rejected at less than 0.000 level, and an f-score of 54.26, which indicates that the items of the scale are indeed differentiated.

Table 4.3
Item Total Correlations and Cronbach Alpha If-Item-Deleted Scores for the Professional Beliefs About Diversity Scale

Scale Item	P&A 1998 Corrected Item Total Correlation	GPDI Corrected Item Total Correlation	P&A 1995 Alpha if Item Deleted	GPDI Alpha if Item Deleted
1. Integrated classrooms	0.3750	0.0558	0.7420	0.7623
2. Middle class classrooms	0.3540	0.2259	0.7550	0.7838
3. Gay/lesbian teachers	0.3670	0.3177	0.7360	0.7792
4. Importance of MCE	0.3000	0.2111	0.7410	0.7839
5. SPED money for gifted	0.3120	0.2875	0.7300	0.7806
6. Experience with diverse students	0.3850	0.2406	0.7380	0.7827
7. Diverse faculty/staff	0.4690	0.2605	0.7260	0.7820
8. MCE for students of color	0.3030	0.3202	0.7330	0.7790
9. Monocultural ed	0.5550	0.3419	0.7410	0.7778
10. People of color in texts	0.4320	0.4949	0.7260	0.7695
11. Physical limitations, reg. classroom	0.3420	0.2115	0.7430	0.7838
12. Group students by ability	0.3250	0.4644	0.7410	0.7707
13. Tests to segregate students	0.3980	0.2946	0.7400	0.7806
14. Teachers adjust instruction	0.4540	0.4331	0.7380	0.7745
15. Males in math and science	0.3210	0.5448	0.7460	0.7659
16. Second language instruction	0.1350	0.2212	0.7470	0.7858
17. Teacher expectations by SES	0.3130	0.3134	0.7480	0.7795
18. Attention girls receive	0.3330	0.0893	0.7480	0.7904
19. More women in administration	0.2650	0.3352	0.7430	0.7782
20. Students of color in SPED	0.4630	0.3667	0.7420	0.7764
21. All fluent in second language	0.4180	0.4184	0.7470	0.7738
22. Fewer opportunities for SES	0.2220	0.3001	0.7490	0.7800
23. English only in schools	0.3490	0.4968	0.7450	0.7705
24. Religion and school policy*	0.2570	0.3097	N/A*	0.7796
25. Understanding diverse religions*	0.4580	0.3867	N/A*	0.7751
Overall Scale Alpha	0.8170	N/A	0.7500	0.7861

*These two questions were added to the 1998 version of the Professional Beliefs about Diversity Scale; item by item Cronbach alpha scores were not available for the 1998 version; MCE = Multicultural Education; SPED = Special Education; SES = Socioeconomic Status.

An assessment of the fit of the regression models was accomplished through examination of the R, R-squared, Adjusted R-squared, standard error of the estimate, and the Durbin Watson scores. The scores/findings of the regression for the GPDI and its sub-models are presented in Table 4.4 below.

Table 4.4
Assessment of the Regression Models Fit

Model	R	R Square	Adjusted R Square	Standard Error of Estimate	Durbin Watson
General Principal's Diversity Intentions Model (GPDI)	0.499	0.249	0.234	0.884	1.998
Principal's Diversity Intentions Disabilities Model (PDI-D)	0.473	0.223	0.207	0.995	1.963
Principal's Diversity Intentions Gender Model (PDI-G)	0.490	0.168	0.151	1.008	2.081
Principal's Diversity Intentions Language Model (PDI-L)	0.386	0.149	0.132	1.037	1.945
Principal's Diversity Intentions Racial/Ethnic Model (PDI-R/E)	0.509	0.259	0.244	0.988	1.939
Principal's Diversity Intentions Social Class Model (PDI-SC)	0.434	0.188	0.171	1.022	2.046

The R value or score is the correlation coefficient for the simple regression and the dependent variable; it reflects a degree of association. "A correlation coefficient is a numerical index that reflects the relationship between two [or more] variables. The value of this descriptive statistic ranges between a value of -1 and a value of +1"

(Salkind 2000, p. 86). The lowest R value is 0.386 for the language diversity sub-model; the highest R value is for the racial/ethnic diversity sub-model at 0.509. The GPDI scores very closely to the highest R value with a score of 0.499.

However, it has been stated that "R calculated from a sample tends to overestimate the population value of R, and this bias increases as the ratio of independent variables to sample size increases" (Hankins, French, & Horne 2000, p. 156). R-squared rather than R is the most common standard used for overall predictive fit; is more commonly used as a measure of association between the independent variables and the dependent variable. R-squared is the coefficient of determination that represents the percentage of total variation of the dependent variable that is explained by the regression model. The coefficient of determination is the percentage of variance in one variable that is accounted for by the variance in the other variables (Salkind, 2000). From Table 4.4, the R-squared value for the general model is 0.249, which indicates that 24.9 percent of the variance is explained by the model.

The drawback of using R-squared is that as more variables are added, the R-squared value will always increase. "By including all the independent variables, we will never find another model with a higher R-squared, but we may find that a smaller number of independent variables result in an almost identical value" (Hair et. al., p. 234); therefore, many researchers use the adjusted R-squared value. The adjusted R-squared is used to produce an estimate that is closer to the population value. The lowest adjusted R-squared value is 0.151 for gender diversity, 0.234 for the general model, and 0.244 for racial/ethnic diversity.

The standard error of the estimate is another measure of accuracy for a multiple regression model's predictions; it represents an estimate of the standard deviation (variance) of the actual dependent values around the regression line (Hair, et. al., 2006). The variation around the regression line provides another perspective as a measure to assess the absolute size of the prediction error; also, is used to estimate the size of the confidence interval for the predictions (Hair et. al., 2006). The standard error of the estimate for the general and sub-models ranged from 0.884 for the general model to 1.037 for the language diversity sub-model.

"The Durbin-Watson test is a test for first-order serial correlation in the residuals of a time series regression. A value of 2.0 for the Durbin-Watson statistic indicates that there is no serial correlation" (Greene, 1993), which is a significant condition that indicates the degree to which the independent variables are sufficiently isolated from each other so that the regression values truly measure the contribution of each and every variable separately without possible cross-variable contaminations. As seen in Table 4.4, the Durbin Watson score for the general model (GPDI) was 1.998, rounded up to the next whole number is a value of 2.000, which is the "ideal" Durbin Watson measure of independence as indicated above, and reaffirms the quality of the GPDI. The sub-models vary from a low of 1.939 on the racial/ethnic sub-model, to a high of 2.081 on the gender sub-model; all these values are very close to the ideal 2.000, and could be interpreted as indicating a high level of isolation among the independent variables of the models.

In testing theoretical models it is significant to examine beta scores in order to determine the relative importance of each variable toward the changes of the dependent variable diversity. "The regression coefficient B and the standardized coefficient beta reflect the change in the dependent measure for each unit change in the independent variable. Comparison between regression coefficients allows for a relative assessment of each variables importance in the regression model," (Hair et. al., 2006, p. 238). Both B and beta measure similar concepts, where B is the unstandardized coefficient and beta is the value of the standardized regression coefficient calculated from standardized data. "The standard error of the regression coefficient is an estimate of how much the regression coefficient will vary between samples of the same size taken from the same population. In a simple sense it is the standard deviation of the estimates of B across multiple samples" (Hair et. al., 2006, p. 238). It is therefore more acceptable in statistical evaluations to look at the beta values for the estimate of the relative importance of each of the independent variables rather than B. The values for B and Beta are presented in the following Table 4.5, along with the standard error, t-test, and significance results.

Table 4.5
B, Beta, and t-Test Scores for the General Principal's Diversity Intentions and the Principal's Diversity Intentions Sub-Models

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Standard Error	Beta	t	Signifi-cance
General PDI	Constant	0.161	0.785	-	0.206	0.837
	Average Score Attitude	0.754	0.163	0.341	4.617	0.000
	Average Perceived Behavioral Control Diversity	-0.235	0.940	-0.189	-2.497	0.014
	Average Subjective Norm Diversity	0.260	0.115	0.172	2.260	0.025
PDI - Disability	Constant	1.662	0.841	-	1.976	0.050
	Average Perceived Behavioral Control Disability Diversity	-0.332	0.096	-0.272	-3.475	0.001
	Average Subjective Norm Disability Diversity	0.313	0.113	0.217	2.766	0.006
	Average Attitude Score Disability Diversity	0.315	0.159	0.153	1.980	0.050
PDI - Gender	Constant	1.581	0.606	-	2.609	0.010
	Average Perceived Behavioral Control Gender Diversity	-0.183	0.093	-0.158	-1.966	0.051
	Average Subjective Norm Gender Diversity	0.376	0.107	0.282	3.506	0.001
	Average Attitude Score Gender Diversity	-0.187	0.098	0.144	1.899	0.060
PDI - Language	Constant	1.912	0.677	-	2.824	0.005
	Average Perceived Behavioral Control Language Diversity	0.330	0.112	0.228	2.962	0.004
	Average Subjective Norm Language Diversity	-0.213	0.091	-0.190	-2.334	0.021
	Average Attitude Score Language Diversity	0.200	0.108	0.152	1.848	0.067
PDI - Racial/ Ethnic	Constant	0.183	0.718	-	0.255	0.799
	Average Perceived Behavioral Control Racial/Ethnic Diversity	0.644	0.138	0.344	4.656	0.000
	Average Subjective Norm Racial/Ethnic Diversity	0.355	0.116	0.233	3.066	0.003
	Average Attitude Score Racial/Ethnic Diversity	-0.224	0.089	-0.190	-2.524	0.013
PDI - Social Class	Constant	1.991	0.640	-	3.109	0.002
	Average Perceived Behavioral Control Social Class Diversity	-0.301	0.087	-0.270	-3.457	0.001
	Average Subjective Norm Social Class Diversity	0.319	0.112	0.226	2.860	0.005
	Average Attitude Score Social Class Diversity	0.236	0.104	0.170	2.258	0.025

*Note: PDI stands for Principal's Diversity Intentions

Especially in the general model, attitude was the overwhelmingly most important factor with almost double the effect of either of the remaining two independent variables, with a beta of 0.341. This is an expected result since early Fishbein models began with attitude as the best predictor of behavior. Even so, the development of Fishbein's theory (i.e., adding in the constructs of perceived behavioral control and societal norms) increase the adjusted r-squared and add to the explanatory power of the model. In the diversity sub-models, the importance of attitude varies somewhat.

In the disabilities sub-model, the perceived behavioral control outweighs the other variables, but the values are quite close to each other, ranging from -0.27 through 0.15. In the gender sub-model, the subjective norm is predominant with a beta of 0.282. In the language sub-model, we see a repetition of the relative importance as in the general model, namely that the average attitude score is the highest with a beta of 0.228. The importance of the attitude ranks first in the race/ethnicity model at 0.334; and finally, in the social class sub-model, the most dominant variable is the perceived behavioral control at -0.25, followed closely by the average subjective norm toward social class diversity at 0.226.

Utilizing Analysis of Variance as a Scientific Confirmation of the GPDI and PDI Sub-Models

The major test of the theoretical model and sub-models as presented in Chapter III and described in this chapter was performed through a regression analysis in which attitude, perceived behavioral control, and subjective norms were regressed against

intentions of principals to implement an awareness of diversity. Following are the regression results in Table 4.6.

Table 4.6
Results for the General Principal's Diversity Intentions and the Principal's Diversity Intentions Sub-Models

Model Name		Sum of Squares	Df	Mean Square	F	Significance
GPDI	Regression	38.134	3	12.711	16.281	0.000
	Residual	114.765	147	0.781		
	Total	152.899	150			
PDI - D	Regression	41.879	3	13.960	14.087	0.000
	Residual	145.670	147	0.991		
	Total	187.550	150			
PDI - G	Regression	30.059	3	10.200	9.866	0.000
	Residual	149.292	147	1.016		
	Total	179.351	150			
PDI - L	Regression	27.702	3	9.234	8.591	0.000
	Residual	158.806	147	1.075		
	Total	185.709	150			
PDI - R/E	Regression	50.154	3	16.781	17.118	0.000
	Residual	143.568	147	0.977		
	Total	193.722	150			
PDI - SC	Regression	35.585	3	11.862	11.349	0.000
	Residual	153.646	147	1.045		
	Total	189.232	150			

The major GPDI model is confirmed at an f-level of 16.281, which corresponds to a probability significance level of less than 0.000. This result indicates the major

scientific justification for the use of the theory of planned behavior as a valid instrument to assess public school principals' professional intentions to promote diversity awareness, which is the major focus of this study. The experiment to go beyond the general model of GPDI by regressing the 'intention' variable against each one of the five sub-elements of attitude such as disabilities, gender, language, racial/ethnic, and social class diversity, have yielded significantly valid results. This confirms that each one of the sub-elements could be measured separately, and yields significant explanatory results. As seen in the above Table 4.6, the f-values that resulted from the ANOVA analysis of the sub-models ranged from 8.59 for the PDI –languages, to 17.118 for the PDI – race/ethnicity, and all were at significance levels of less than 0.000. The results of the preceding analyses indicate that the first research question may be answered in the affirmative.

Implementation/Measurement of Texas Principals' Intentions Using the Confirmed Operationalized Theoretical Structure

In order to provide a foundation for understanding the intentions of Texas principals, a descriptive analysis of their total Texas population was conducted, and the findings are presented. The descriptive analysis was conducted in support to the second and third research question:

What are the intentions of Texas principals to promote diversity awareness in general and among the five diversity dimensions of disabilities, gender, language, racial/ethnic, and social class in their campus community? and

Do these intentions differ among five demographic characteristics of race/ethnicity, gender, age, degree, and campus type?

Descriptive Analysis of the Principal's Population

The Texas Education Agency's 2004-2005 Role Master File data for school administrators were examined in terms of the demographic characteristics for the population of the 6,161 full-time public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year (Texas Education Agency, 2005b).

Table 4.7
Principal's Ethnicity by Campus Group Grade Name

	African American		Asian		Hispanic		Native American		White	
	N=	%	N=	%	N=	%	N=	%	N=	%
Elementary	408	61.4	7	87.5	827	68.5	9	60	2,521	59.1
Elementary/Secondary	5	4.7	0	0	6	0.5	1	6.7	94	88.7
High School	89	13.4	1	12.5	139	11.5	3	20	751	76.4
Junior High School	53	8	0	0	50	4.1	0	0	208	4.9
Middle School	109	16.4	0	0	185	15.3	2	13.3	693	16.2
Subtotal	664	10.8	8	0.1	1,207	19.6	15	0.2	4,267	69.3
Total	6,161									

Table 4.7 illustrates these principal's ethnicity by campus group grade name. This cross-tabulation showed that the majority of African American, Hispanic, Asian, or Native American (AHANA) principals worked in elementary schools. The ethnicity of these total principals was found to be N=664 (or 10.8 percent) African American, N=8 (or 0.1

percent) Asian, N=1,207 (or 19.6 percent) Hispanic, N=15 (or 0.2 percent) Native American, and N=4,267 (or 69.3 percent) White.

Table 4.8
Principal's Level of Education by Degree

	No degree	Bachelor's degree	Master's degree	Doctorate degree
Count	N=14	N=392	N=5,479	N=276
Percent	0.2	6.4	88.9	4.5

As seen in Table 4.8, the population of principals had a varied level of education, with most (N=5,479 or 88.9 percent) holding a Master's degree. A few principals (N=14) held no degree, as seen in Table 4.8. The overwhelming majority of these principals served at independent school districts (N=6,157 principals) as compared to those at common school districts (N=4), which are very rural school districts usually without a high school (Texas Education Agency, 2005b).

As illustrated in Table 4.9, the category of school districts where these principals worked was also varied.

Table 4.9
Principal's Work Location by Type of Area

	Major Suburban Area	Major Urban Area	Other Central City Area	Other Central City Suburban	Non-Metro Stable Area	Indepen-dent Town	Non-Metro Fast Growing Area	Rural Area
Count	N=1,551	N=1,067	N=916	N=810	N=800	N=471	N=100	N=446
Percent	25.2	17.3	14.9	13.1	13	7.6	1.6	7.3

The majority of principals worked in districts that were categorized as being located in major suburban areas (N=1,551 or 25.2 percent). The smallest number of principals was working in non-metro fast growing areas. As seen in Table 4.10, analysis of the campus grade group name (elementary, elementary/secondary, middle school, junior high school, and high school) showed that the vast majority of principals (N=3,772 or 61.2 percent) worked at elementary campuses, whereas the fewest principals (N=106 or 1.7 percent) of principals worked at campuses that were all level classified as elementary/secondary campuses (Texas Education Agency, 2005b).

Table 4.10
Principals by Campus Grade Group Name

	Elementary Campus	Middle School Campus	Junior High School Campus	High School Campus	All Level Campus
Count	N=3,772	N=989	N=311	N=983	N=106
Percent	61.2	16.1	5	16	1.7

A cross-tabulation statistical comparison of principal gender by campus grade group name was conducted. This comparison (as seen in Table 4.11) showed that even though more than half (58.2 percent) of all principals were women, the proportion of female to male principals was not evenly distributed across the campus grade groups and was in fact heavily skewed to the elementary level (Texas Education Agency, 2005b).

Table 4.11
Principal's Gender by Campus Grade Group Name

	Elementary	Middle School	Junior High School	High School	All Level	Totals
Percent Female	72.2	44.6	37.3	26.9	37.7	58.2
Percent Male	27.8	55.4	62.7	73.1	62.3	41.8
Totals	100.0	100.0	100.0	100.0	100.0	100.0

Descriptive Analysis of the Respondents' Population

The Texas Education Agency's 2004-2005 Role Master File data for school administrators were examined in terms of the demographic characteristics for the 151 principals who responded to the survey. These principals were part of a random sample of the 6,161 full-time public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year (Texas Education Agency, 2005b).

Table 4.12
Respondent's Ethnicity by Campus Group Grade Name

	African American		Asian		Hispanic		Native American		White	
	N=	%	N=	%	N=	%	N=	%	N=	%
Elementary	2	40.0	0	0	21	67.7	1	33.3	71	64.0
Elementary/Secondary	0	0	1	100.0	0	0	0	0	1	0.9
High School	2	40.0	0	0	6	19.4	1	33.3	18	16.2
Junior High School	0	0	0	0	1	3.2	0	0	7	6.3
Middle School	1	20.0	0	0	3	9.7	1	33.3	14	12.6
Subtotal	5	3.3	1	0.7	31	20.5	3	2.0	111	73.5
Total*	151									

*Note total may not equal 100 percent due to rounding

Table 4.12 illustrates these principal's ethnicity by campus group grade name. This cross-tabulation showed that the majority of African American, Hispanic, Asian, or Native American (AHANA) principals worked in elementary schools. The ethnicity of these total principals was found to be N=5 (or 3.3 percent) African American, N=1 (or 0.7 percent) Asian, N=31 (or 20.5 percent) Hispanic, N=3 (or 2.0 percent) Native American, and N=111 (or 73.5 percent) White.

Table 4.13
Respondent's Level of Education by Degree

	No degree	Bachelor's degree	Master's degree	Doctorate degree
Count	N=1	N=13	N=127	N=10
Percent	0.7	8.6	84.1	6.6

As seen in Table 4.13, the respondent principals had only a slightly varied level of education, with the vast majority (N=127 or 84.1 percent) holding a Master's degree. One principal held no degree (N=1, or 0.7 percent). All respondents served in independent school districts (N=151 principals), and conversely no principals in the respondents group served at common school districts (Texas Education Agency, 2005b). As illustrated in Table 4.14, the location of the principal's work was varied.

Table 4.14
Respondent's Work Location by Type of Area

	Major Suburban Area	Major Urban Area	Other Central City Area	Other Central City Suburban	Non-Metro Stable Area	Indepen-dent Town	Non-Metro Fast Growing Area	Rural Area
Count	N=38	N =18	31	15	26	13	2	8
Percent	25.2	11.9	20.5	9.9	17.2	8.6	1.3	5.3

The majority of respondents worked in districts that were categorized as being located in major suburban areas (N=38 or 25.2 percent) or other central city areas (N=31, or 20.5 percent). The smallest number of respondents was working in non-metro fast growing areas.

As seen in Table 4.15, analysis of the campus grade group name (elementary, elementary/secondary, middle school, junior high school, and high school) showed that the vast majority of respondents (N=96 or 63.6 percent) worked at elementary campuses, whereas the least (N=1 or 0.7 percent) worked at an all level elementary/secondary campus (Texas Education Agency, 2005b).

Table 4.15
Respondents by Campus Grade Group Name

	Elementary Campus	Middle School Campus	Junior High School Campus	High School Campus	All Level Campus
Count	N=96	N=19	N=8	N=27	N=1
Percent	63.6	12.6	5.3	17.9	0.7

A cross-tabulation statistical comparison of respondent's gender by campus grade group name was conducted. This comparison (as seen in Table 4.16) showed that even though more than half (61.6 percent) of all respondents were women, the proportion of female to male principals was not evenly distributed across the campus grade groups and was in fact heavily skewed to the elementary level (Texas Education Agency, 2005b).

Table 4.16
Respondent's Gender by Campus Grade Group Name

	Elementary	Middle School	Junior High School	High School	All Level	Totals
Percent Female	(N=73) 76.0	(N=10) 52.6	(N=1) 12.5	(N=9) 33.3	(N=0) 0	(N=93) 61.6
Percent Male	(N=23) 24.0	(N=9) 47.4	(N=7) 87.5	(N=18) 66.7	(N=1) 100.0	(N=58) 38.4
Totals	(N=96) 100.0	(N=19) 100.0	(N=8) 100.0	(N=27) 100.0	(N=1) 100.0	(N=151) 100.0

The demographic analysis of the respondents shows close correspondence to the population of principals serving full-time on public, regular instructional campuses in Texas. This correspondence is indicative of the level of representation for the random sample drawn from the population.

Results of the Descriptive and Regression Analysis of the General Principal's Diversity Intentions Model and the Diversity Sub-Models

The mean of the average scores for the general model and the sub-models are presented in the following Table 4.17. Also includes the standard deviations of the scores distributions for the general model and the sub-models. The representative quality of the mean is very much dependent upon the homogeneity of the data that it represents, the higher the level of homogeneity the more representative is the mean. Levels of homogeneity are measurable through standard deviations in which the lower the standard deviation of the distribution, the higher is the level of the homogeneity of the data within the distribution. In a normal distribution, the density curve is symmetrical, centered about its mean, with its spread determined by its standard deviation. If a dataset follows a normal distribution, then about 68 percent of the observations will fall within plus or minus one standard deviation of the mean; about 95 percent of the observations will fall within plus or minus two standard deviations of the mean (Salkind, 2000).

Table 4.17
Means and Standard Deviations for the General Principal's Diversity Intentions Model and the Principal's Diversity Intentions Sub-Models

Model Name	Variable Name (Average)	Mean	Standard Deviation
GPDI	Score Attitude	3.657	0.456
	Subjective Norm Diversity	3.991	0.670
	Perceived Behavioral Control Diversity	2.411	0.809
	Intention Diversity	3.388	1.009
PDI - Disabilities	Attitude Score Disability Diversity	4.290	0.543
	Subjective Norm Disability Diversity	4.060	0.777
	Perceived Behavioral Control Disability Diversity	2.250	0.916
	Intention Disability Diversity	3.540	1.118
PDI - Gender	Attitude Score Gender Diversity	2.907	0.843
	Subjective Norm Gender Diversity	3.890	0.821
	Perceived Behavioral Control Gender Diversity	2.460	0.944
	Intention Gender Diversity	3.130	1.093
PDI - Language	Attitude Score Language Diversity	4.013	0.768
	Subjective Norm Language Diversity	3.960	0.848
	Perceived Behavioral Control Language Diversity	2.400	0.995
	Intention Language Diversity	3.520	1.113
PDI - Racial/ Ethnic	Attitude Score Racial/Ethnic Diversity	3.587	0.590
	Subjective Norm Racial/Ethnic Diversity	4.050	0.746
	Perceived Behavioral Control Racial/ Ethnic Diversity	2.440	0.964
	Intention Racial/Ethnic Diversity	3.380	1.136
PDI - Social Class	Attitude Score Social Class Diversity	3.638	0.808
	Subjective Norm Social Class Diversity	3.990	0.796
	Perceived Behavioral Control Social Class Diversity	2.500	1.026
	Intention Social Class Diversity	3.370	1.123

The GPDI model indicates that the mean score for the average intention of principals to implement an awareness of diversity above the dictated policy of the school district was not very likely, at a mean of 3.38 on a maximum of 5.00 score. It was also

very interesting to note the extremely low level of homogeneity at a standard deviation of 1.009, which indicates a very wide range of differences in the intention of principals to implement an awareness of diversity above the mandated levels. Similar results regarding the intention of principals is documented in their intention towards gender diversity at a very low 3.13, with a high standard deviation of 1.093; a somewhat better but still low average intention towards implementation of language diversity at 3.52, with a standard deviation of 1.113; a similarly unenthusiastic or low intention toward implementation of racial/ethnic diversity at 3.38 with a standard deviation of 1.136; and a repeated low intention of implementation of social class diversity awareness above and beyond the codified requirements at 3.37 with a standard deviation of 1.123.

Analyses of the measures of centrality were made for the average intention of the GPDI and the intention scores for the PDI's. These measures are presented in Table 4.18.

Table 4.18
Measures of Centrality for Intentions on the GPDI and PDI Models

	Average Intentions	Intentions Disabilities	Intentions Gender	Intentions Language	Intentions Racial/Ethnic	Intentions Social Class
N=	151	151	151	151	151	151
Mean	3.381	3.536	3.132	3.517	3.384	3.371
Median	3.600	4.000	3.000	4.000	4.000	4.000
Mode	3.000	4.000	3.000	4.000	4.000	4.000
Skewness	-0.632	-0.600	-0.205	-0.601	-0.358	-0.430
Kurtosis	0.051	-0.322	-0.537	-0.330	-0.695	-0.581

The median score represents the midpoint of the data distribution when data are arranged in numerical order. Half of the data will be above the median and half will be below the median (Salkind, 2000). The highest median score is a 4 as seen in the PDI's for Disabilities, Intentions, Racial/Ethnic, and Social Class diversity dimensions.

The mode is the most commonly occurring score in the distribution. The mode for intentions on the GPDI and PDI – Gender are 3, and a 4 for the remaining PDI's. Skewness refers to the degree of asymmetry (which often reflects extreme scores) in a distribution; a negatively skewed distribution reflects the concentration of scores in the upper part of the distribution (Salkind, 2000). All intention scores for the GPDI and PDI models are negatively skewed. Kurtosis is a measure of whether the data are peaked or flat relative to the mean of the normal distribution; distributions with high kurtosis have a distinct peak near the mean, indicating that more of the variance is due to infrequent extreme deviations, and those with low kurtosis are relatively flat (Salkind, 2000). The kurtosis scores for the GPDI and PDI models are all low, indicating a relatively flat distribution around the mean.

A frequency table was constructed to provide additional information in support of the average intentions score for the GPDI as well as the PDI sub-models. As seen in Table 4.19, the highest of the average score intentions on the GPDI were at a 3 and 4 rating, accounting for a total of 34.44 percent of the responses. Other high average intention scores were at 3 for PDI-Gender (35.10 percent) and at 4 for the PDI's of Disabilities (39.74 percent), Language (41.06 percent), Racial/Ethnic (35.10 percent), and Social Class (37.75 percent) of the total responses for the diversity dimensions.

Table 4.19
Frequency Table for Average Intentions Diversity on the GPDI Model and PDI Models

Model	Average Intentions Score	Frequency	Percent
GPDI	1.0	9	5.96
	1.8	1	0.66
	2.0	16	10.60
	2.4	1	0.66
	2.8	4	2.65
	3.0	26	17.22
	3.2	7	4.64
	3.4	9	5.96
	3.6	13	8.61
	3.8	8	5.30
	4.0	26	17.22
	4.2	10	6.62
	4.4	2	1.32
	4.6	6	3.97
	4.8	2	1.32
	5.0	11	7.28
PDI - Disabilities	1	9	5.96
	2	19	12.58
	3	34	22.52
	4	60	39.74
	5	29	19.21
PDI - Gender	1	13	8.61
	2	27	17.88
	3	53	35.10
	4	43	28.48
	5	15	9.93
PDI - Language	1	9	5.96
	2	20	13.25
	3	33	21.85
	4	62	41.06
	5	27	17.88
PDI-Racial/Ethnic	1	9	5.96
	2	27	17.88
	3	37	24.50
	4	53	35.10
	5	25	16.56
PDI - Social Class	1	10	6.62
	2	25	16.56
	3	37	24.50
	4	57	37.75
	5	22	14.57

The outlying scores of 5 and 1 on the GPDI model accounted for 18.83 percent (29 respondents) of the responses. The 5 and 1 scores of the PDI models (when combined) account for 38 responses (25.7 percent) of the Disabilities intentions, 28 responses (18.54 percent) of the Gender intentions, 36 responses (23.84 percent) of the Language intentions, 34 responses (22.52 percent) of the Racial/Ethnic intentions, and 32 responses (21.19 percent) of the Social Class intentions. This indicates that less than a quarter of the responses in the PDI's were very strongly positive or negative. There were at least 9 respondents who had very low intentions across all models, and at least 11 respondents who had very high intentions across all models.

Covariates

Analysis of variance was performed based upon the major demographics of the principals in order to ascertain whether there are significant differences (in the intentions of principals to implement an awareness of diversity) in subgroups within race/ethnicity, degree, gender, campus type, and age. As shown in the following tables, demographic covariates of race/ethnicity, gender, age, degree, and campus type were examined. The covariates of race/ethnicity, age, and degree have shown statistically significant differences among the subgroups measured. Table 4.20 below presents the analysis of variance within race/ethnicity.

Table 4.20
Analysis of Variance for Race/Ethnicity Covariate

Race/Ethnicity Group	Mean	f-Score	Significance
African American	3.28	3.448	0.018
White	3.26		
Hispanic	3.86		

Within ethnicity, the Hispanic group is statistically significant at an average of 3.86, an f = 3.448 and a significance of 0.018. The African American and White subgroups were approximately similar with averages of 3.26 and 3.28.

As seen in Table 4.21 below, degree is borderline significant, with a mean of 3.8 at the Bachelors degree, an f = 2.636 and a significance of 0.052. The mean for Masters and Doctoral degrees decreased correspondingly, at 3.4 for the Masters degree and 3.18 for the Doctoral degree. These results indicate that the higher the academic degree, the lower is the likelihood of the principal in their intention to implement diversity awareness.

Table 4.21
Analysis of Variance for Degree Covariate

Degree	Mean	f-Score	Significance
1 Bachelors	3.80	2.636	0.052
2 Masters	3.40		
3 Doctoral	3.18		

As seen in Table 4.22, ANOVA's for gender show that there is not a statistically significant difference in principals' intentions to promote diversity awareness between Male and Female principals.

Table 4.22
Analysis of Variance for Gender Covariate

Gender	Mean	f-Score	Significance
Male	3.28	1.025	0.313
Female	3.45		

The mean variance for Male respondents was 3.28, and for Female respondents 3.45. The f-score and Significance score are both low. Table 4.23 shows the analysis of variance for the covariate of age. This covariate was found to be statistically significant and measured at .030; these results indicate that there is a significant difference in the intentions of the observed school principals to promote diversity awareness in their schools based on the age group to which they belong.

Table 4.23
Analysis of Variance for Age Covariate

Age Group	Mean	f-Score	Significance
30-39 years	3.8222	4.812	.030
40-49 years	3.4130		
50-59 years	3.3528		
60 or more years	2.9667		

The mean likelihood score decreased as the increased. This indicates that age is a significant indicator regarding principals' intentions to promote diversity awareness. The trend is that younger principals have relatively stronger intentions to promote diversity awareness than are older principals. As seen in Table 4.24, there is not a statistically significant difference between respondents' intentions to implement diversity awareness based on the type of campus on which they serve.

Table 4.24
Analysis of Variance for Campus Type Covariate

Campus Type	Mean	f-Score	Significance
Elementary School	3.3479	.763	.551
Middle School	3.6820		
Junior High School	3.5250		
High School	3.2519		
Elementary and Secondary School	4.2000		

The analysis in the previous tables shows statistically significant differences among the covariates of race/ethnicity, age, and degree. However, the covariates of gender and campus type did not show a statistically significant difference at the .05 alpha level. These and other statistical findings are discussed in Chapter V.

CHAPTER V

DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of the study is to provide an empirical theoretical base to measure and explain principals' professional intentions to promote diversity awareness. The theory of planned behavior (TPB) has been used widely in the social sciences, and as such provided a solid foundation for this research project. This study in actuality developed an innovative assessment tool based on the TPB and on Pohan and Aguilar's (1999) Professional Beliefs About Diversity Scale (PBADS) to successfully assess diversity awareness intentions of principals. This instrument was operationalized in the General Principal's Diversity Intentions (GPDI) model and the accompanying Principal's Diversity Intentions (PDI) sub-models for the diversity dimensions of disabilities, gender, language, racial/ethnic, and social class diversity. All models included the components of attitudes, subjective norms, and perceived behavioral control.

The research questions for this study covered a test of the theoretical structure, the implementation and measurement of the principals' intentions using this structure as operationalized in the test instrument, and examining possible demographic covariate effects. A random sample was drawn of 476 Texas public school principals serving full-time on regular instructional campuses during the 2004-2005 school year. This sample was derived from the total population of 6,161 such principals during that same time period. From this sample 151 respondents returned complete, usable responses to the instrument. The instrument was administered via the Internet, as solicited by an e-mail

containing a link to the on-line survey. Results of tests of the theoretical structure indicated that the GPDI model and the PDI sub-models for the diversity dimensions of disabilities, gender, language, racial/ethnic, and social class diversity provided a valid and reliable instrument capable of empirically measuring and explaining public school principals' professional intentions to promote diversity awareness.

The research questions were formulated to seek the scientific justification and confirmation of the TPB as a valid and reliable instrument to quantify principals' intentions to promote diversity. These questions were:

1. Can a theory of planned behavior approach be used to assess school principals' professional intentions to promote diversity awareness?
2. What are the intentions of Texas principals to promote diversity awareness in general and among the five diversity dimensions of disabilities, gender, language, racial/ethnic, and social class in their campus community? and
3. Do these intentions differ among five demographic characteristics of race/ethnicity, gender, age, degree, and campus type?

Discussion

Discussion of the Findings

Can a theory of planned behavior approach be used to assess school principals' professional intentions to promote diversity awareness?

The theory of planned behavior approach (Ajzen, 1985, 1988, 1991; Zint, 2002) can be used to assess school principals' intentions to promote diversity awareness. The theory of planned behavior was operationalized incorporating the Professional Beliefs

About Diversity Scale (Pohan & Aguilar 1999, 2001). This was shown by the development and testing of the GPDI and PDI models, with multiple regression analysis indicating goodness of fit within acceptable statistical tolerances (Gall, et al., 1996). The results indicate that the distribution of the response data regarding the independent variables attitude, perceived behavioral control, subjective norms, and the dependent variable intentions are significantly similar to a normal distribution at deviations of less than 0.06 (with the variable attitude being the only variable above the 0.05 level, at 0.057) (Hair, et al., 2006; Kerlinger, 1973). This confirms that the condition of normality for the data has been analyzed and verified.

Also, analyses were conducted to determine multicollinearity and VIF scores. The models indicated low levels for multicollinearity, which is one of the significant conditions for the quality of a regression analysis. The corresponding VIF scores were indicative as well of low degrees of multicollinearity (Baten, 2006; Hair, et. al., 2006). Reliability was measured through the Cronbach alpha score of .7861, which should be considered acceptable for terms of judging reliability. In order to test for additivity of the scale, an ANOVA analysis was performed; the f-score of 54.26, indicated that the items of the scale are indeed differentiated (Santos, 1999; Cronbach, 1951; El Jaam, 2005). An assessment of the fit of the regression models was accomplished through examination of the R, R-squared, adjusted R-squared, standard error of the estimate, and the Durbin Watson scores; all scores were at the acceptable level (Salkind, 2000). The values for B and Beta, along with the standard error, t-test, and significance results show that especially in the general model, attitude was the overwhelmingly most important

factor with almost double the effect of either of the remaining two independent variables (Hair, et. al., 2006). This is an expected result since early Fishbein models began with attitude as the constructs of perceived behavioral control and societal norms increase the adjusted r-squared and add to the explanatory power of the model (Fishbein, 1967; Ryan & Bonfield, 1975).

In the diversity sub-models, the importance of attitude varies somewhat. The major GPDI model is confirmed at an f-level of 16.281, which corresponds to a probability significance level of less than 0.000 (Hair, et. al., 2006; Salkind, 2000). This result indicates the major scientific justification for the use of the theory of planned behavior as a valid instrument to assess public school principals' professional intentions to promote diversity awareness. The results of these analyses indicate that the first research question may be answered in the affirmative. The TPB approach can be used to assess school principals' professional intentions to promote diversity awareness.

What are the intentions of Texas principals to promote diversity awareness in general and among the five diversity dimensions of disabilities, gender, language, racial/ethnic, and social class in their campus community?

The GPDI model indicates that the average intention of principals to implement an awareness of diversity above and beyond the dictated policy of the school district was not very likely, at a mean of 3.38 on a maximum of 5.00 score. There was an extremely low level of homogeneity that indicated a very wide discrepancy in the intention of principals to implement an awareness of diversity in general above the state standards mandated levels. These results were similar to those regarding the intention of

principals towards promoting an awareness of the diversity dimensions of disabilities, gender, language, racial/ethnic, and social class. Findings show the principals' repeated relatively slightly more positive intention of implementing an awareness of these diversity dimensions above and beyond the codified requirements. Even though the median responses were midrange, the frequency counts for each of the diversity sub-models showed a trend toward positive intentions to implement diversity awareness. Responses to the Gender sub-model showed that 58 cases (38.41 percent) were scored in the positive range of level 4 (agree) or 5 (strongly agree). Stronger positive trends were seen in the remaining sub-models. The Racial/Ethnic sub-model had 78 cases (51.66 percent) in the positive, as was the similarly scored Social Class sub-model with 79 cases (52.32 percent) in the positive. The most positive trends were for the Disabilities and Language sub-models, which each had 89 cases (58.95 percent) at the level of agree or strongly agree.

Do these intentions differ among five demographic characteristics of race/ethnicity, gender, age, degree, and campus type?

The intentions of Texas principals to promote diversity awareness in general and in its various dimensions were measured by the GPDI and PDI models. The results of the application of these tools indicate that public school principals in this state are not very likely to promote diversity awareness beyond the levels mandated to them. The levels of this likelihood varied significantly among the various age groups of the principals, from a high of 3.8222 for the youngest (30-39 year old) age group, to a low of 2.9667 among the oldest (60+ year old) age group, and indicated that the likelihood

for the intention to promote diversity awareness decreases with increases in age. Further, these intentions to promote diversity awareness differ among other demographic characteristics. Significant differences were found among Texas public school principals based upon their ethnicity and levels of academic degree held. In the case of ethnicity, the Hispanic principals show a much higher likelihood than their African American and White colleagues; and the higher the academic degree held by the Texas principals, the lower was their likelihood to promote diversity awareness. Gender and campus type do not significantly discriminate among the subgroups of principals.

The application of this model to this population indicated that full-time, public school principals in Texas are not very likely to promote diversity awareness beyond the levels mandated to them, scoring 3.38 on a 5-point scale (3 being "neither likely nor unlikely" and 4 being "likely" to implement measures to promote awareness of diversity). The levels of this likelihood varied significantly among the age groups of the principals, from a high of 3.8222 for the youngest (30-39 year old) age group, to a low of 2.9667 among the oldest (60+ year old) age group, and indicated that the likelihood for the intention to promote diversity awareness decreases with increases in age.

Discussion of Context and Theoretical Development

Current and ongoing changes in the demographic composition of the U.S. have increased the need to understand ethnically and culturally diverse people (Azevedo, Von Glinow, & Paul, 2001). Diversity is a salient topic of study due to the "increasing amount of diversity taking place in our nation, as well as our schools" (McCray, Wright, & Beachum, 2004, p. 111). According to Patrick and Reinhartz (1999), society is

becoming more diverse than ever before in its history, and the populations of many school systems reflect this diversity. In order "to advance learning and school improvement, leaders need to recognize and challenge the confines of sameness and move toward valuing and learning from differences" (Walker & Quong, 1998, p. 81). School leadership and diversity "are invariably connected as schools move from monocultural, nondiverse contexts to those that contain ethnically diverse, multilingual, and economically disadvantaged children" (Madsen & Mabokela, 2002, p. 1). It is "more appropriate to emphasize the phenomenon of increasing diversity in America, since it is a society of multiple cultures and cross-cultural influences" (LeFlore, 2005). These multiple cultures and cross-cultural influences found in America bring about dynamic tension within a diverse society that is "struggling with a past involving oppression, inequality, and buried knowledge" (Schmitz, Stakeman, & Sisneros, 2001, p. 612).

The growing population diversity was evident in the 2000 United States Census, which showed that the U.S. is the most ethnically and racially varied nation in modern times where nearly three in ten Americans are people of color and, as of 2002, nearly twenty percent of the U.S. population lived in a household where a second language other than English is spoken (Rosenblatt, 2001; Davis-Wiley, 2002). The number of school-age children aged 5-18 who are second language learners has been conservatively estimated to have reached 3.5 million in 2000, and to approach 6 million by 2020; ethnic groups of students once labeled minorities were projected to soon become majorities, especially in densely populated urban areas (Faltis, 2001). Garrett and Morgan's

contention is that as the population of the U.S. is becoming increasingly diverse, there are a growing number of linguistically and culturally diverse students confront school personnel, representing an array of racial, ethnic, cultural, and socio-economically diverse students, families, and communities that continue to emerge (Garrett & Morgan, 2002). The State of Texas is also growing, with more people, more urbanicity, and more ethnic diversity; the state's population grew sixteen percent between 1990 (approximately 17 million people) and 2000 (approximately 21) (Reid, 2001). This high population growth rate is expected to impact the public schools.

Though ethnicity and race are associated frequently with the concept of diversity, seven dimensions of diversity have been identified by Pohan and Aguilar (2001). These are disabilities; gender; language; racial/ethnic; religious; sexual orientation; and social class diversity (Pohan & Aguilar 2001). In order to heal and strengthen, we must grow to appreciate and enjoy the multiple cultures, races, and realities; and recognize the consequences of current and historical oppression (Schmitz, Stakeman, & Sisneros, 2001) at the national, state, and local levels. The increasing levels of diversity in society indicate that schools must play a central role in the initiation and infusing of multicultural concepts and ideas into the school cultures. The key element in addressing the increasing diversity is the school leader, the principal who sets the cultural climate for the campus (Decker, 1997) and who "must be able to shape the school to meet emerging needs in its environment and among its students" (Donaldson, 2001, p. 4). Principals must be aware of the cultures and diversity in their schools (Garrett & Morgan

2002) and must play a significant role as a model for students when dealing with racial or diversity issues (O'Neil, 1993).

As school leaders, the principalship has come under consideration as an element of educational reform for schools and school systems. For the past twenty-plus years, "professional associations have taken the lead in a movement to develop professional standards for school executives and apply them to improving the profession" (Hoyle, et al., 2005, p. 9). Several organizations have developed standards and recommendations for principals, including the American Association of School Administrators (AASA), the Interstate School Leadership Licensure Consortium (ISLLC) under the auspices of the Council of Chief State School Officers (CCSSO), and, the National Policy Board for Educational Administration (NPBEA). The State of Texas developed its own standards for principal certification to serve as the "foundation for the individual assessment, professional growth plan, and continuing professional education activities required by §241.30" of Texas public school principals (Texas Administrative Code, 2005, Title 19, part 7, chapter 241, section 241.1.a; Flores, 2002, p. 154).

The need for diversity awareness as referenced in the Texas standards was used in this study. The principal must understand, value, and promote diversity awareness in the campus community (Texas Administrative Code, 2005, Title 19, part 7, chapter 241, section 241.15.b.4). As evident by the Texas standards, it is important that a school's culture nurture tolerance for a diverse working system and facilitate educational empowerment and progress for all ethnic groups (Banks, 1999). A strong principal leader is a critical element that can influence the school culture (Deal & Peterson, 1991;

Reitzug & Reeves, 1992), as well as nurture tolerance and celebrate diversity. In consideration of the key role principals play in influencing school culture and accepting and celebrating diversity, literature was sought to identify a means to quantify, measure, and analyze Texas principals' intentions to promote diversity awareness. This means to quantify, measure, and analyze intentions was found to be in an application of the Theory of Planned Behavior (TPB).

Models of the theory of planned behavior (TPB) have been studied, and meta-analyses indicate that the models have been significant across a wide variety of disciplines (Sutton, 1998; Van den Putte, 1995). The theory of planned behavior focuses on intentions to act as predictors of behavior. Ajzen noted that the ability to carry out intention often depended on the level of volitional control that individuals have over their behavior - where little volitional control exists, the intention to act (and thus behavior) will be affected (Ajzen, 1985, 1988, 1991; Zint, 2002). The theory of planned behavior (TPB) was developed to model "how all behaviors are produced, not just those under volitional control. The TPB has become the dominant social-psychological model for relating attitudes to behavior (Conner, et al., 2003). Within the TPB, Ajzen postulated that the intention to perform an act was made up of three elements, namely attitude towards the act, the subjective norm, and the perceived behavioral control.

The motivation that drove this study was the ongoing discussion regarding the increasing population diversity in the United States and increasing population diversity in schools which is included as an element in both general standards for principals and Texas standards for principals. A basic necessity for an assessment of public school

principals' professional intentions to promote diversity awareness in their schools is the capability to empirically quantify and measure these intentions. This study used an innovative approach in combining the TPB with the Professional Beliefs About Diversity Scale in order to model principals' general intentions to promote an awareness of diversity, congruent with the Texas standards for principal certification and evaluation/assessment. Based on the TPB attitudes, subjective norms, and perceived behavioral control were used to assess Texas principals' intentions to promote diversity awareness in their campus communities by using the GPDI model to represent the operational conversion of the theoretical constructs. The GPDI was then adapted as the Principal's Diversity Intentions (PDI) models that examined in turn the disabilities, gender, language, race/ethnicity, and social class dimensions of diversity.

The methodology of this study involved taking a random sample of 476 subjects from the population of full-time, public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year. Principals in random sample were contacted via e-mail to participate in an electronic survey; the instrument for this survey was based on the operationalized General Principal's Diversity Intentions model. The response rate for this survey was 31.72 percent, or 151 respondents; this exceeded the minimum sample size of 147 necessary to meet the requirements of a 95 percent confidence level, and an eight percent margin of error with a population of 6,161 full-time, public school principals serving on regular instructional campuses in Texas during the 2004-2005 school year.

In order to provide the context for this study, a demographic analysis of this entire population of 6,161 Texas full-time, public school principals on regular instructional campuses was conducted using the secondary data from TEA. Also, a demographic analysis was conducted for the 151 respondents. The relationship between the covert behavior (intentions) and overt behavior (the active implementation of the intentions) is not a part of this study, because in order to measure this relationship a longitudinal study would have to be conducted that would allow for enough time to pass so that a principal could have the opportunity to implement that which he/she intended. Further, there would be significant legal and personal limitations in order to be able to find an objective measure (excluding principal's self reporting) that would document whether a successful implementation of the initiative took place.

Conclusions

Usability of the Operationalized GPDI Model for Assessing Principals' Intentions to Promote Diversity Awareness

The literature indicates that there is widespread agreement among the various constituents in the field of education that the knowledge base and performance expectations of principals should be standardized. In order to achieve such a goal, principal education and licensing organizations such as the American Association of School Administrators (AASA), the Interstate School Leaders Licensure Consortium (ISLLC), the National Policy Board for Educational Administration (NPBEA), and National Council for Accreditation of Teacher Education (NCATE) developed standards for educator education, assessment, and evaluation. The NCATE standard states that

principals must promote multicultural awareness, gender sensitivity, and racial and ethnic appreciation (National Council for Accreditation of Teacher Education, 1995). The ISLLC standard stated that principals must promote the success of all students by responding to diverse community interests and needs (Council of Chief State School Officers, 1996). The NPBEA defined its standards as principals being able to analyze and describe the cultural diversity in their school and describe community norms and values especially in relation to the role of the school promoting social justice (National Policy Board of Education Administration, 2002).

The State of Texas set forth standards for principal certification that serve as the foundation for assessment, professional growth, and continuing principal education in the Texas Administrative Code (2005). The Texas standard stated that a principal understands, values, and is able to promote awareness of learning differences, multicultural sensitivity, and ethnic appreciation (Texas Administrative Code, 2005). The incorporation of a diversity standard both at the national and state levels is in direct response to the ever increasing levels of diversity in our national and state education systems, and in response to the expected demographic changes that the level of diversity in the US in general and in Texas in particular will continuously increase in the years ahead. Once standards are established it becomes a necessity to develop capabilities to quantitatively measure those standards on an individual and population wide basis. Without this capability we would lack an unbiased tool that would enable the specific identification of the knowledge and performance of principals along any standard, and specifically the standard of diversity. The main focus of this study therefore was to

attempt to develop an empirically based instrument that would be capable to measure knowledge and performance of principals regarding the diversity standard. The instrument was developed based upon the theory of planned behavior and operationalized to measure the specific issue of principals' intentions to promote an awareness of diversity. This model includes a dependent principal's intention variable and three independent variables that are major indicators of the principal's attitudes, perceived behavioral control, and subjective norms, in accordance with the theory of planned behavior.

The GPDI model was tested utilizing a random sample of 476 full-time, public school principals serving on regular instructional campuses, derived from the total population (6,161) of such principals in Texas (Texas Education Agency, 2005b). This model has proven to be a statistically reliable and valid measure, and therefore could be used in future research in measuring the intention of principals in other states to promote diversity awareness. Since the Pohan and Aguilar (2001) summarize the fact that there are at least five types or sub-dimensions of diversity regarding disabilities, gender, language, racial/ethnic, and social class diversity, five sub-models of intention towards diversity were created along each diversity type, and each sub-model was tested separately. The results were that each and every sub-model was proven to be statistically reliable and valid as well.

The GPDI will enable multi-state comparisons regarding the levels of fulfillment for the diversity standard, and could become a basis for cross state and national level policy making regarding the promotion of the need to promote awareness of diversity to

levels that policy makers should deem desirable. Since not only the major model but also its sub-models were proven to be statistically reliable and valid, future research does not only have to focus on diversity in general but could also be utilized for separate research specifically focused on each and every diversity sub-type, such as principals intention to promote disabilities diversity, gender diversity, language diversity, racial/ethnic diversity, and social class diversity.

The nation's and state's demographic constituency is changing, becoming more diverse than ever. It is believed that if diverse populations have special needs, and if we believe that harmony among student bodies and among teachers and administrators is necessary in order to increase the performance level of a diverse student and teacher body then it is understandable why those that have developed the norms at the various levels are all in agreement that it is significant that principals as the academic leaders of the schools are well informed about diversity and are capable and willing to promote awareness of diversity in their schools. Diversity by definition indicates differences in cultures, and therefore possible differences in learning processes. Knowing that such differences exist and being aware that such differences exist enables the addressing of these differences by adjusting the curricular and instructional methods to the unique characteristics of learning. This will most probably lead to an improvement of educational attainment and cultural sensitivity processes for all constituents.

Intentions of Texas Principals to Promote Diversity in General and in its Diversity Sub-Dimensions

As mentioned above, a standard identified the necessity to promote diversity awareness by principals is not only a part of the national standards (NCATE/ISLLC) but also a part of the Texas Standards for Principal preparation, assessment, and evaluation. It was therefore a logical choice for a scholarly effort that originated in Texas to initially apply this newly developed GPDI instrument for the purpose of measuring the intentions of Texas principals to promote diversity awareness in their campus communities.

One of the major findings regarding the intentions of Texas principals on the issue of promoting diversity in general in their campuses was that it was measured at an average of 3.38 on a maximum of 5.00 scale, ranging from 1.00 being very unlikely, to 5.00 being very likely implement measures to promote diversity awareness. The measurements of the principals' intentions toward promoting diversity awareness did not significantly change in the diversity sub-models. The highest score was in the likelihood to promote disabilities diversity awareness with a score of 3.54. It should be noted that the midpoint value of 3.00 indicated that the respondent was neither likely nor unlikely to implement measures to promote diversity awareness beyond the level recommended by their school district in the upcoming year. This indicates that there seems to be a lack of intention to implement diversity awareness among Texas public school principals. It becomes now a policy making issue in Texas whether and what should be done to try and increase this disappointing levels of intent and develop an educational strategy

targeted towards elevating future intentions of Texas principals towards promoting diversity awareness in their campuses.

Intentions Differ Among Principals Demographic Characteristics

This study incorporated the different demographics characteristics of each individual respondent as covariates in the regression model in order to account for possible significant differences in principals' intentions to promote diversity awareness. By incorporating the respondent's characteristics of race/ethnicity, degree, gender, campus type, and age into the proportion of the explained variance, it was possible to measure and demonstrate whether principals with certain demographic characteristics do differ significantly from each other based upon the differences in their demographics, and whether the incorporation of these demographic differences contributes to a higher R-squared value (proportion of the explained variance). The results have shown that there are significant differences in the principals' intentions to promote diversity awareness based upon the principal's racial/ethnic membership, their level of education (degree held), and their age group. There were no significant differences measured based on gender and campus type.

The additional information acquired through the incorporation of the covariates could be very helpful to those that are expected to develop strategies for the increase of principals' intentions to promote diversity awareness. Strategists should take in to account that Hispanic principals are the ones most likely to implement measures for the promotion of diversity; that the strategy should take into consideration that the higher the education, the lower is the intention of the principal to promote diversity awareness; and

that this finding is very closely correlated to the fact that the older the age group to which the principal belongs to the lower is their intention to promote diversity awareness. Therefore, a special strategy should be developed that would take into consideration those that require the most attention in this respect are White, middle-aged principals holding masters or doctoral degrees. No special measures targeting gender differences or campus type are shown to be necessary.

An additional contribution of this study was to provide a demographic profile of the 6,161 Texas full time principals working at public, regular instructional campuses in 2004-2005. Most principals (69.3 percent) were White, with 19.6 percent Hispanic and 10.8 percent African American principals. Most principals (58.2 percent) were female, and most principals (61.2 percent) were serving at elementary schools; it was of interest to note that 72.2 percent of female principals serve at elementary schools. The majority of principals (93.4) held a masters degree or higher, and most (76 percent) were very experienced, having between 11 and 30 years as principal.

This study provided empirical evidence that the theory of planned behavior is a empirically acceptable tool that could be used for the quantitative assessment of school principals' intentions to promote diversity awareness in their campus communities. This assessment was sought not only in the general form of diversity, but also in measuring the intentions to promote dimensions of diversity awareness, such as disabilities, gender, language, racial/ethnic, and social class diversity. Contributions from an analysis of the data are in discovering the benchmark for principals' diversity intentions. The analysis showed that the school principals' intentions to promote general diversity awareness in

their campus communities are positive yet weak, with a mean score slightly more positive than the neutral midpoint. Sub-models of the diversity dimensions of gender, language, and racial/ethnic diversity echo this finding. Principals have a neutral to only slightly positive intention to promote an awareness of diversity in its dimensions of disabilities, racial/ethnic, and social class diversity. The intention to implement diversity awareness beyond mandated levels decreases with age and higher academic degree held. Hispanic principals are more likely than their colleges to promote diversity awareness.

A further contribution of this study was the description of the demographic profile of Texas full-time, regular instructional campus, public school principals drawn from very reliable data. This profile did not interpolate sample findings but rather derived its conclusions from the detailed data of the general population of principals as collected by the Texas Education Agency. This contribution was made in order to provide a foundation for understanding the data derived from the measurement of principals' intentions to promote diversity awareness in general, and in the dimensions of diversity.

Recommendations

Findings from this study are a wake-up call for the educational leadership of Texas. At present, Texas principals' intentions are only slightly more positive than neutral regarding an intention to promote diversity awareness in their campus communities beyond the level recommended by their school districts. Implications of these findings could inform legislatures, organizations, and constituents on the state of 'what is' versus 'what should be' regarding the principals' intentions to implement

diversity awareness. Implications of these findings must be considered to provide the foundation for measures that lead to an increase in the need for implementation of diversity awareness in planning programs, in-service, and teacher and principal preparation programs.

An important implication with future ramifications is the fact that this study can provide tools for replication of similar studies among other populations in Texas (superintendents, central office administrators in charge of curriculum and instruction, campus administrators other than principals, teachers). This study could be replicated in other geographic regions within the state, including a border/non-border comparison. Interstate replications could provide important national insight for interesting comparative analysis. Other researchers or policy makers could utilize the demographic description of the Texas and national public school principal population for future research purposes and educational related policy making.

As the nation and state become more diverse, schools also become more diverse. Leadership and diversity are connected as schools move from monocultural, nondiverse contexts to ethnically diverse, multilingual, economically diverse contexts (Madsen & Mabokela, 2002). It is important that schools and school leaders understand the need to promote diversity awareness on campus for the betterment of all constituents. In order to advance learning and school improvement, leaders must recognize and challenge the confines of sameness and move toward valuing and learning from difference (Walker & Quong, 1998) by promoting diversity awareness.

REFERENCES

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl and J. Bechmann (Eds.), *Action-Control: From Cognition to Behavior.* Heidelberg, Germany: Springer.

Ajzen, I. (1988). *Attitudes, personality and behavior.* Milton Keynes, Buckinghamshire, UK: Open University Press.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211.

Ajzen, I. & Fishbein, M. (1980). *Understanding attitude and predicting social behavior.* Englewood Cliffs, NJ: Prentice Hall.

American Association of School Administrators (1981). *Code of ethics.* Arlington, VA: American Association of School Administrators.

Azevedo, A., Von Glinow, M. & Paul, K. (2001). Does ethnic diversity mean cultural diversity? *International Journal of Value-Based Management, 14*, 273-291.

Bandeira de Mello, V. & Broughman, S. (1996). *SASS by state: 1993-94 schools and staffing survey: Selected results.* Washington, DC: US Department of Education, National Center for Education Statistics.

Bandura, A. (1977, March). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*(2), 191-215.

Banks, J. A. (1993). Multicultural education: Development, dimensions, and challenges. *Phi Delta Kappan, 75*(1), 22-28.

Banks, J. A. (1999). *An introduction to multicultural education.* Boston: Allyn and Bacon.

Banks, J. A., Cookson, P., Gay, G., Hawley, W. D., Irvine, J. J., Nieto, S., Schofield, J. W., & Stephan, W. G. (2001, November). Diversity within unity: Essential principles for teaching and learning in a multicultural society. *Phi Delta Kappan,* 196-203.

Baten, J. (2006). *Multivariate regression analysis powerpoint*. Retrieved March 13, 2006 from www.uni-tuebingen.de/uni/wwl/multivariate 20analyses.ppt.

Beck, L. G. (1994). *Reclaiming educational administration as a caring profession.* New York: Teachers College Press.

Beck, L. G. & Murphy, J. (1997). *Ethics in educational leadership programs: Emerging models.* Columbia, MO: University Council for Educational Administration.

Becker, E. A., & Gibson, C. C. (1998). Fishbein and Ajzen's theory of reasoned action: Accurate predication of behavioral intentions for enrolling in distance education courses. *Adult Education Quarterly, 49*(1), 43-55.

Bennett, C. I. (1999). *Comprehensive multicultural education: Theory and practice* (4th edition). Boston, MA: Allyn and Bacon.

Blair, L. A. (Ed.) (2000). As our nation becomes more diverse. *SEDLetter, XII*(2), 2.

Blalock, H. M. (1979). *Social statistics,* (2nd ed.) New York: McGraw-Hill, Inc.

Blase, J. (1987). Dimensions of effective school leadership: The teacher's perspective. *American Educational Research Journal, 24*, 589-610.

Bogotch, I. E., Miron, L. F., & Murry, J. (1998). Moral leadership discourses in urban school settings: The multiple influences of social context. *Urban Education, 33*(3), 303-330.

Brieve, F. J. (1972). Secondary principals as instructional leaders. *NASSP Bulletin, 55*(1), 11-15.

Brookover, W., Beamer, L., Efthim, H., Miller, & Hathaway, D. (1982). *Creating effective schools.* Holmes Beach, FL: Learning Publications.

Capper, C. A. (Ed.). (1993). *Educational administration in a pluralistic society.* Albany, NY: State University of New York Press.

Carignan, N., Pourdavood, R. G., King, L. C., & Feza, N. (2005). Social representations of diversity: Multi/intercultural education in a South African urban school. *Intercultural Education, 16*(4), 381-393.

Cohen, J., Fishbein, M., & Ahtola, O. (1972, November). The nature and uses of expectancy-value models in consumer attitude research, *Journal of Marketing Research, IX*, 456-460.

Combs, J. P. (1994). *A profile of the elementary school principalship in Texas in 1993.* Doctoral dissertation, East Texas State University, Commerce, Texas.

Conner, M., Povey. R., Sparks, P., James, R., and Shepherd, R. (2003). Moderating role of attitudinal ambivalence within the theory of planned behaviour. *British Journal of Social Psychology, 42*, 75-94.

Council of Chief State School Officers (1996). *Interstate school leaders licensure consortium: Standards for school leaders.* Alexandria, VA: Council of Chief State School Officers.

Creative Research Systems (2005). *The survey system sample size calculator.* Retrieved October 15, 2005 from www.surveysystem.com/sscalc.html.

Cronbach, L. J. (1951, September). Cronbach alpha and the internal structure of tests. *Psychometrika, 16,* 297-334.

Cross, C. T., & Rice, R. C. (2000). The role of the principal as instructional leader in a standards-driven system. *NASSP Bulletin, 84*(620), 61-65.

Cuban, L. (1988). *The managerial imperative and the practice of leadership in schools.* Albany, NY: State University of New York Press.

Davis-Wiley, P. (2002). A demographic profile of diversity in the United States: Who are the newcomers of the 21st century? *International Education 32*(1), 49-57.

Deal, T. E., & Peterson, K. D. (1991). *The principal's role in shaping school culture.* Washington, DC: Office of Educational Research & Improvement, U.S. Department of Education.

Decker, L. (1997). Is parent involvement your job? *NEA Today 16*. 6-7.

DiPaola, M., & Tschannen-Moran, M. (2003). The principalship at a crossroads: A study of the conditions and concerns of principals. *NASSP Bulletin, 87*(634), 43-50.

Donaldson, G., Jr. (2001). *Cultivating leadership in schools: Connecting people, purpose, and practice.* New York: Teachers College Press.

Edmonds, R. R. (1979). Effective schools for the urban poor. *Educational Leadership, 37*(2), 15-24.

El Jaam, B. (2005). *Customer satisfaction with cellular network performance: Issues and analysis.* Doctoral dissertation, Iowa State University, Ames, Iowa.

Ellis, D. W. (1997). *Measuring high school students' perceptions of teacher respect: The relationship to success in school (academic success, teacher-student relationship, interpersonal skills).* Doctoral dissertation, the University of Texas, Austin, Texas.

Faltis, C. J. (2001). *Joinfostering: Teaching and learning in multilingual classrooms* (3rd ed.). Upper Saddle River, NJ: Merrill Prentice Hall.

Fiore, T., Curtin, T., & Hammer, C. (1997). *Public and private school principals in the United States: A statistical profile, 1987-1988 to 1993-1994.* Washington, DC: U. S. Government Printing Office.

Fishbein, M. (1967). Attitude and the prediction of behavior. In M. Fishbein (Ed.), *Readings in attitude theory and measurement* (477-492). New York: Wiley.

Fishbein, M. & Ajzen, I. (1973). Attribution of responsibility: A theoretical note. *Journal of Experimental Social Psychology, 9*(2), 148-169.

Flores, P. V. (2002). An analysis of the evolution in public high school principals' roles and leadership theories as compared to high school principal certification requirements in fives states in the United States from 1980-2001. *Dissertation Abstracts International, 63* (05), 16401. (UMI No. 3054591).

Ford, S. G. (2003). *The role of imagined interaction and self-efficacy in psychosocial adjustment to spousal bereavement: A communication perspective.* Doctoral Dissertation, Louisiana State University, Baton Rouge, Louisiana.

Fullan, M. & Hargreaves, A. (1991). What's worth fighting for: Working together for your school. Andover, MA: Regional Laboratory for Educational Improvement of the Northeast and Islands in association with Ontario Public School Teachers' Federation.

Gall, M. D., Borg, W. R., & Gall, J. P. (1996). *Applying educational research. A practical guide.* (4th ed.). White Plains, NY: Longman Publishers USA.

Garrett, J. E. (2002). Cultural diversity: Applying technology. *National Social Science Perspectives Journal, 19*, 55-60.

Garrett, J. E., & Morgan, D. E. (2002). Celebrating diversity by educating all students: Elementary teacher and principal collaboration. *Education, 123*(2), 268-275.

Gaten, T. (2000). *University of Leicester on-line statistics: Normal distribution*. Retrieved March 14, 2006 from www.le.ac.uk/biology/gat/virtualfc/ Stats/normal.htm.

Gay, G. (1995). Bridging multicultural theory and practice. *Multicultural Education, 3*(1), 4-9.

Grant, G., & Ladson-Billings, G. (1997). *Dictionary of multicultural education.* Phoenix, AZ: Oryx Press.

Greene, W. H. (1993). *Econometric analysis* (2nd ed.). New York: Macmillan Publishing Company.

Growe, R., Schmersahl, K., Perry, R., & Henry, R. (2002). A knowledge base for cultural diversity in administrator training. *Journal of Instructional Psychology 29*(3), 205-212.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis.* Upper Saddle River, NJ: Pearson Prentice Hall.

Hallinger, P. (1992). The evolving role of American principals: From managerial to instructional to transformational leaders. *Journal of Educational Administration,* 30(3), 35-48.

Hankins, M., French, D., & Horne, R. (2000). Statistical guidelines for studies of the theory of reasoned action and the theory of planned behavior. *Psychology & Health,* 15(2), 151-162.

Hodgkinson, H. L. (2002). The demographics of diversity. *Principal, 82*(2), 14-16.

Holland, P. (2004). Principals as supervisors: A balancing act. *NASSP Bulletin, 88* (07), 3-14.

Hoyle, J., Bjork, L., Collier, V., & Glass, T. (2005). *The superintendent as CEO: Standards based performance.* Thousand Oaks, CA: Corwin Press.

Hoyle, J., English, F., & Steffy, B. (1998). *Skills for successful 21st century school leaders: Standards for peak performers.* Arlington, VA: American Association of School Administrators.

Isaacson, R. L., & Hunt, M. L. (1971). *Psychology: The science of behavior*. (2nd ed.) New York, NY: Harper and Row. In M. J. Ryan & E. H. Bonfield, (1975). The Fishbein extended model and consumer behavior, *Journal of Consumer Research, 2*(2), 118-125.

Kerlinger, F. N. (1973). *Foundations of behavioral research,* (2nd ed.). New York: Holt, Rinehart and Winston, Inc.

Kolekofski, K. E., Jr., & Heminger, A. R. (2003). Beliefs and attitudes affecting intentions to share information in an organizational setting. *Information & Management, 40*(1), 521-532.

LeFlore, L. (2005). *Valuing diversity.* Morgantown, WV: West Virginia University Extension Service.

Li, N. (2002). Toward educational equality within the context of school teachers' managing. *Education, (123)*2, 329-333.

Livingston, A., (2006). *The condition of education in brief.* (NCES 2006-072). Washington, DC: U.S. Government Printing Office.

MacQueen, A. H., Wellisch, J. B., Carriere, R. A., & Duck, G. A. (1978). School management and organization in successful schools. *Sociology of Education, 51*(1), 211-221.

Madsen, J. A. & Mabokela, R. O. (2002). Leadership and diversity: Creating inclusive schools. *Peabody Journal of Education, 77*(1), 1-6.

Marcus, A. C. (1976). *Administrative leadership in a sample of successful schools from the national evaluation of the emergency school aid act.* Santa Monica, CA: System Development Corporation.

Maxcy, S. J. & Caldas, S. J. (1991). Moral imagination and the philosophy of school leadership. *Journal of Educational Administration, 29*(3), 38-53.

McCray, C. R., Wright, J. V., & Beachum, F. D. (2004). An analysis of secondary school principals' perceptions of multicultural education. *Education, 125*(4), 111-120.

Morgan, D. E. (2002, February). *The school administrator's role in fostering inclusive schools for diverse students.* Paper presented at the annual conference of the National Council of Professors of Educational Administration, San Diego, CA.

Murdock, S., Hoque, N., Michael, M., White, S., & Pecotte, B. (1997). *The Texas challenge: Population change and the future of Texas.* College Station, TX: Texas A&M University Press.

Murdock, S., White, S., Hoque, N., Pecotte, B., You, X., & Balkan, J. (2002). A summary of *The Texas challenge in the twenty-first century: Implications of population change for the future of Texas.* College Station, TX: Texas A&M University Press.

Murphy, J., & Shipman, N. J. (2002). The Interstate School Leaders Licensure Consortium (ISLLC) story: A brief narrative. In K. Hessel & J. Holloway (2002), *A framework for school leaders: Linking the ISLLC standards to practice* (4-9). Princeton, NJ: Educational Testing Service.

National Council for Accreditation of Teacher Education. (1995). *Standards, procedures, and policies for the accreditation of professional education units.* Washington, DC: National Council for Accreditation of Teacher Education.

National Education Association. (1948). *The elementary-school principalship: Today and tomorrow.* Washington, DC: National Education Association.

National Policy Board of Education Administration. (2002). *The National Policy Board of Education Administration principal standards*. Arlington, VA: National Policy Board of Education Administration, 2002.

Nelson, D. K. (1983). A profile of the elementary school principalship in Texas in 1982. Doctoral Dissertation, East Texas State University, Commerce, Texas.

Noack, K. W. (2004). An assessment of the campus climate for gay, lesbian, bisexual, and transgender persons as perceived by the faculty, staff and administration at Texas A&M University. Doctoral Dissertation, Texas A&M University, College Station, TX.

Norusis, M. J. (2002). *SPSS guide to data analysis*. Upper Saddle River, NJ: Prentice Hall.

O'Neil, J. (1993). A new generation confronts racism. *Educational Leadership, 50*(1). 60-63.

Parks, S. (1999). Reducing the effects of racism in schools. *Educational Leadership, 56*(7), 14-26.

Patrick, D., & Reinhartz, J. (1999). The role of collaboration in teacher preparation to meet the needs of diversity. *Education, 119,* 388-399.

Pedhazur, E. J. (1982). *Multiple regression in behavioral research, second edition.* New York: CBS College Publishing.

Phillips, J. J. & Phillips, P. P. (2004, August). Return to sender: Improving response rates for questionnaires and surveys. *Performance Improvemen, 43*(7), 40-44.

Pohan, C. A., & Aguilar, T. E. (1999). *The personal and professional beliefs about diversity scales: A user's manual and scoring guide*. Corpus Christi, TX: Pohan & Aguilar.

Pohan, C. A., & Aguilar, T. E. (2001). Measuring educators' beliefs about diversity in personal and professional contexts. *American Educational Research Journal, 38*(1). 159-182.

Raosoft, Incorporated (2005). *Sample size calculator by Raosoft, Inc.* Retrieved October 15, 2005 from www.raosoft.com/samplesize/html.

Reid, S. (2001). *Texas demographics: The state of change*. Austin, TX: Texas Association of Counties.

Reitzug, U. C. & Reeves, J. E. (1992). "Miss Lincoln doesn't teach here": A descriptive narrative and conceptual analysis of a principal's symbolic leadership behavior. *Educational Administration Quarterly, 28*(2), 185-219.

Richard, A. (2000, November 1). Panel calls for fresh look at duties facing principal. *Education Week,* 3-5.

Riche, M. F. (2002). America's diversity and growth: Signposts for the 21st century. *Population Bulletin, 55*(2), 3-43.

Risius, S. L. (2002). Practical applications of the ISLLC standards: Job analysis, job descriptions, and performance evaluation criteria in selected school districts. *Dissertation Abstracts International, 63* (7), 24-28. (UMI No. 3060166).

Rodriguez, V. J. (2000). Diversity training improves intercultural communication skills. *SEDLetter, XII* (2). 1-2.

Rosenberg, M. J. (1960a). Cognitive reorganization in response to the hypnotic reversal of attitudinal effect. *Journal of Personality, 28*(1), 39-63.

Rosenberg, M. J. (1960b). A structural theory of attitude dynamics. *Public Opinion Quarterly, 24*(2), 319-340.

Rosenblatt, R. A. (2001). Census illustrates diversity from sea to shining sea. *The Los Angeles Times,* A16. Los Angeles, CA: The Los Angeles Times.

Ryan, M. J., & Bonfield, E. H. (1975). The Fishbein extended model and consumer behavior. *Journal of Consumer Research, 2*(2), 118-125.

Salkind, N. J. (2000). *Statistics for people who (think they) hate statistics.* Thousand Oaks, CA: Sage Publishers, Inc.

Santos, J. R. A (1999). Cronbach's Alpha: A tool for assessing the reliability of scales. *Journal of Extension*, *37*(2), April. Retrieved March 10, 2006 from www.joe.org/joe/1999april/tt3.html.

Scheurich, J. J. (1998). Highly successful and loving, public elementary schools populated mainly by low-SES children of color. *Urban Education, 33*(4), 451-491.

Schmitz, C. L., Stakeman, C., & Sisneros, J. (2001). Educating professionals for practice in a multicultural society: Understanding oppression and valuing diversity. *Families in Society: The Journal of Contemporary Human Services, 82*(6), 612-622.

Sergiovanni, T. J. (1992). Introduction: Postmodernism and supervision. In C. D. Glickman (Ed.), *Supervision in transition: 1992 yearbook of the Association for Supervision and Curriculum Development.* Alexandria, VA: Association for Supervision and Curriculum Development.

Sergiovanni, T. J. (1994). *Building community in schools.* San Francisco, CA: Jossey-Bass.

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research, *Journal of Consumer Research, (*15)1, 325-343.

Skrla, L., Erlandson, D. A., Reed, E. M., & Wilson, A. P. (2001). *The emerging principalship.* Larchmont, NY: Eye on Education.

Smith, W., & Andrews, R. (1989). *Instructional leadership: How principals make a difference*. Alexandria, VA: Association for Supervision and Curriculum Development Press.

SPSS, Inc. (2002). *Statistical package for the social sciences, version 11.5.* Upper Saddle River, NJ: Prentice Hall, Inc.

Stainback, W. & Stainback, S. (Eds.), (1990). *Support networks for inclusive schooling* Baltimore, MD: Paul H. Brooks Publishers.

State Board of Educator Certification, (2002). *Number and percentage of Texas public school principals by race/ethnicity and sex (1995 through 2002).* Austin, TX: State Board of Educator Certification.

Strizek, G. A., Pittsonberger, J. L., Riordan, K. E., Lyter, D. M., & Orlofsky, G. F. (2006). *Characteristics of schools, districts, teachers, principals, and school libraries in the United States: 2003-2003 schools and staffing survey (NCES 2006-313 Revised.* Washington, DC: U.S. Government Printing Office.

Sutton, S. (1998). Predicting and explaining intentions and behavior: How well are we doing? *Journal of Applied Social Psychology, 28*(8), 1317-1338.

Sweeney, J. (1982). Principals can provide instructional leadership: It takes commitment. *Education, 103*(2), 204-207.

Texas Administrative Code. (2005) *Texas administrative code, 2005, Title 19, part 7, chapter 241.*

Texas Education Agency (2005a). *AskTED Texas education directory.* Retrieved December 1, 2005 from askted.tea.state.tx.us/org-bin/school/SCHOOL_RPT?Y::All::Directory.

Texas Education Agency (2005b). *Role master file 2004-2005*: *Public education information management system fall snapshot.* Austin, TX: Texas Education Agency.

Texas Education Agency (2006). *Academic excellence indicator system, 2004-05 State Profile Report.* Austin, TX: Texas Education Agency.

Thomson, S. D. (Ed.), (1993). *Principals for our change schools: The knowledge and skills base.* Lancaster, PA: Technomic.

Urquhart, V. A. (2002). Three faces of diversity. *Principal, (82)*2, 24-26.

U.S. Congress. (1972). *Revitalizing the role of the school principal,* Washington, DC: Government Printing Office.

Van den Putte, B. (1995). Applying structural equation modeling in the context of the theory of reasoned action: Some problems and solutions. *Structural Equation Modeling, 4*(4). 320-337.

Walker, A. & Quong, T. (1998). Valuing differences: Strategies for dealing with the tensions of educational leadership in a global society. *Peabody Journal of Education, 73*(2), 81-105.

Wallace, R. (1996). *From vision to practice: The art of educational leadership*. Thousand Oaks, CA: Corwin Press, Inc.

Zacharias, Z. (2003). Beliefs, attitudes, and intentions of science teachers regarding the educational use of computer simulations and inquiry-based experiments in physics. *Journal of Research in Science Teaching, 40*(8), 792-823.

Zint, M. (2002). Comparing three attitude-behavior theories for predicting science teacher's intentions. *Journal of Research in Science Teaching, 39*(9), 819-844.

APPENDIX A

INSTRUMENT

Professional Attitudes Toward Diversity

1. **CONSENT FORM - Title of Research: Using a Theory of Planned Behavior Approach to Assess Public School Principals' Professional Intentions to Promote Diversity Awareness**

"I have been asked to participate in a research study that will examine principals' attitudes and intentions. I was randomly selected as a possible respondent since my name appears on a list of all Texas public school principals, available from the Texas Education Agency. A total of 476 people have been asked to participate in this study. The purpose of this study is to consider principal intentions to implement diversity programs on their campus. If I agree to be in this study, I will be asked to rate my beliefs on various issues. This study will only take approximately 12 to 14 minutes. There are no risks associated with this study. The benefits of participation are to allow me an opportunity to consider my beliefs regarding diversity.

I will receive no monetary compensation for participation. This study is confidential. The records of this study will be kept private. No identifiers linking me to the study will be included in any sort of report that might be published. Research records will be stored securely and only the researcher, Edith Landeck, will have access to the records. My decision whether of not to participate will not affect my current or future relations with Texas A&M University. If I decide to participate, I am free to refuse to answer any of the questions that may make me uncomfortable. I can withdraw at any time without my relations with the university, job, benefits, etc., being affected. I can contact: Edith Landeck (ediesuz@yahoo.com), or Dr. Patricia J. Larke (plarke@tamu.edu) with any questions about this study.

This research study has been reviewed by the Institutional Review Board- Human Subjects in Research, Texas A&M University. For research-related problems or questions regarding subjects' rights, I can contact the institutional Review Board through Ms. Angelia M. Raines, Director of Research Compliance, Office of Vice President for Research at (979) 458-4067 (araines@vprmail.tamu.edu).

I have read the above information. I may print a copy of this consent document for my records. By typing an X in the 'I consent' column, I consent to participate in this study. I may choose to not participate in the study by typing an X in the 'I do not consent' column."

I consent	I do not consent
__	__

---

2. What is your gender? Female __ Male __

3. How many years of experience do you have in the field of education? _____

4. What position did you hold prior to principal?

Assistant Principal	Coach	Counselor	Classroom Teacher	Central Office Administrator	Other

5. Years as principal in this school: _____

6. Total years of principalship, including in this school: _____

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Place an 'X' in the appropriate column:

7. Teachers should not be expected to adjust their preferred mode of instruction to accommodate the needs of all students

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

8. The traditional classroom has been set up to support the middle-class lifestyle

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

9. Gays and lesbians should not be allowed to teach in public schools

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

10. Students and teachers would benefit from having a basic understanding of different (diverse) religions

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

11. Money spent to educate the severely disabled would be better spent on programs for gifted students

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

12. All students should be encouraged to become fluent in a second language

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

13. Only schools serving students of color need a racially, ethnically, and culturally diverse staff and faculty

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

14. The attention girls receive in school is comparable to the attention boys receive

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

15. Tests, particularly standardized tests, have frequently been used as a basis for segregating students

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

16. People of color are adequately represented in most textbooks today

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

17. Students with physical limitations should be placed in the regular classroom whenever possible

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

18. Males are given more opportunities in math and science than females

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

19. Generally, teachers should group students by ability levels

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

20. Students living in racially isolated neighborhoods can benefit socially from participating in racially integrated classrooms

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

21. Historically, education has been monocultural, reflecting only one reality and has been biased toward the dominant (European) group

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

22. Whenever possible, second language learners should receive instruction in their first language until they are proficient enough to learn via English instruction

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

23. Teachers often expect less from students from the lower socioeconomic class

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

24. Multicultural education is most beneficial for students of color

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

25. More women are needed in administrative positions in schools

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

26. Large numbers of students of color are improperly placed in special education classes by school personnel

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

27. In order to be effective with all students, teachers should have experience working with students from diverse racial and ethnic backgrounds

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

28. Students from lower socioeconomic backgrounds typically have fewer educational opportunities than their middle-class peers

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

29. Students should not be allowed to speak a language other than English while in school

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

30. It is important to consider religious diversity in setting public school policy

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

31. Multicultural education is less important that reading, writing, arithmetic, and computer literacy

Strongly Agree	Somewhat Agree	Neither	Somewhat Disagree	Strongly Disagree

Place an 'X' in the appropriate column for #32-34, 'a' through 'e,' below:

32. If you were to emphasize awareness of diversity (as listed below) beyond the level recommended by your district, how strongly would peers whose professional opinion you value approve or disapprove of your efforts?

	Strongly Approve	Approve	Neither	Disapprove	Strongly Disapprove
a. Race/Ethnicity Diversity					
b. Gender Diversity					
c. Social Class Diversity					
d. Disabilities Diversity					
e. Language Diversity					

33. If you were to emphasize awareness of diversity (as listed below) beyond the level recommended by your district, how difficult would it be for you to do so in your school?

	Very Difficult	Difficult	Neither	Easy	Very Easy
a. Race/Ethnicity Diversity					
b. Gender Diversity					
c. Social Class Diversity					
d. Disabilities Diversity					
e. Language Diversity					

34. How likely is it that you will implement measures to emphasize awareness of diversity (as listed below) beyond the level recommended by your district in the upcoming school year?

	Very Likely	Likely	Neither	Unlikely	Very Unlikely
a. Race/Ethnicity Diversity					
b. Gender Diversity					
c. Social Class Diversity					
d. Disabilities Diversity					
e. Language Diversity					

APPENDIX B

IRB

VPR
Office of the Vice President for Research
Texas A&M University

Office of Research Compliance

Academy for Advanced Telecommunication and Learning Technologies

Center for Information Assurance and Security

Comparative Medicine Program

Institute for Scientific Computation

Institute for Telecommunications and Information Technology

Integrative Center for Homeland Security

Microscopy Imaging Center

Office of Business Administration

Office of Distance Education

Office of Graduate Studies

Office of Organizational Development and Diversity

Office of Proposal Development

Office of Sponsored Projects

Professional Development Group

Technology Commercialization Center

Texas A&M University Research Park

Texas A&M University

1186 TAMU

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Suite B 150

College Station, Texas

77843-1186

979.458.1467

FAX 979.862.3176

September 10, 2005

MEMORANDUM

To: Edith S. Landeck
TLAC
MS 4232

From: Ms. Sharon Alderete, CIP
IRB Program Coordinator

Subject: IRB Request for Exemption

Protocol Number: 2005-0444

Title: Using a Theory of Planned Behavior Approach to Assess Public School Principals' Professional Intentions to Promote Diversity Awareness

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The Institutional Review Board (IRB) has determined that the referenced protocol application meets the criteria for exemption and no further review is required. However, any amendments or modifications to the protocol must be reported to the IRB and reviewed before being implemented to ensure the protocol still meets the criteria for exemption.

This determination was based on the following Code of Federal Regulations:
(http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.htm)

☐ 46.101(b)(1)	☑ 46.101(b)(2)	☐ 46.101(b)(3)
☐ 46.101(b)(4)	☐ 46.101(b)(5)	☐ 46.101(b)(6)

Comments: Consent Documents: IRB contact information must be corrected from Dr. Mike Buckley to Ms. Angelia M. Raines, Director of Research Compliance, (979)458-4067, araines@vprmail.tamu.edu.

If you have any questions regarding this protocol application or the review process, please contact the IRB office at (979)458-4067.

VITA

Name: Edith Suzanne Landeck

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E-mail address: elandeck@uisd.net

Education: M.S.E., Mid-Management Administration, Texas A&M International University, 1996

M.B.A., International Trade, Laredo State University, 1993

B.B.A., Business Administration, St. Mary's University of San Antonio, Texas, 1989

Publications: Landeck, M., Garza, C., and Landeck, E. (2006, March). "A comparative study of Texas-Mexico border and non-border public school principals". *Southwest Review of International Business Research, Vol. 16*(1).

Landeck, M., Garza, C., and Landeck, E. (2005, March). "A geodemographic comparative study of the Texas/Mexico border and non-border public school teachers" *Southwest Review of International Business Research, (16)*1.

Awards: Secondary Assistant Principal of the Year for Region I, awarded by the Texas Association of Secondary School Principals in Austin, Texas. 2000

Scholarship recipient, Fulbright Memorial Fund, Government of Japan. Selected as one of 300 nationwide participants for travel to Japan in order to observe the Japanese educational system. 1998

Major Work History:

2001 - Present	Director of Grants Administration, United ISD. Laredo, Texas
1999 - 2001	Secondary Teacher, United ISD. Laredo, Texas
1996-1999	Secondary Assistant Principal, United ISD. Laredo, Texas
1994-1996	Secondary Teacher, United ISD. Laredo, Texas
1990-1994	Elementary Teacher, United ISD. Laredo, Texas.